

State of California
The Resources Agency

DEPARTMENT OF WATER RESOURCES
Division of Operations and Maintenance

STATE WATER PROJECT OPERATIONS DATA

For the month of:
July 2003

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State of California

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The Resources Agency

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MONTHLY HIGHLIGHTS

The following highlights are activities or actions that impacted State Water Project operations during the month of July 2003.

Statewide precipitation was 75 percent of average for the 2002-2003 water year as of July 31. Statewide runoff was 45 percent of average for the water year. Precipitation percentages are used in this report to express historical and regional comparisons. Additional and more specific information is available via the Internet at: "http://cdec.water.ca.gov/snow_rain.html".

On July 31, total storage in major SWP reservoirs was about 3.0 MAF, compared to 2.90 MAF at this time in 2002. The average storage in the major SWP reservoirs at the end of July is about 3.76 MAF. The July 31 storage at Lake Oroville was about 1.93 MAF as compared to 1.73 MAF last year. Precipitation in the Feather River Basin was much lower than average. The State's share of San Luis Reservoir storage was about 401 TAF, as compared with 549 TAF at this time last year. On July 31, the combined storage in our southern reservoirs was about 669 TAF, compared with about 618 TAF at this time last year.

Through July, SWP water deliveries for 2003 were about 1.96 MAF. This is a combination of project, transfer, and exchange waters. This is about 75 TAF less than was delivered during the same period in 2002.

Exports were at maximum the first week, then increased to 7180 (with 500 cfs for the EWA) on the 2nd week. Then in response to water quality concerns at Jersey Point exports were dropped back below 6680 the latter half of July.

Table 1. Antelope Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 22,566 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right				
Jun 30	5001.73	22,314								
1	5001.68	22,268	-46	20	0	0	0	14	34	
2	5001.62	22,213	-55	20	0	0	0	14	34	
3	5001.56	22,158	-55	20	0	0	0	14	34	
4	5001.53	22,130	-28	20	0	0	0	14	34	
5	5001.47	22,075	-55	20	0	0	0	14	34	
6	5001.44	22,048	-27	20	0	0	0	10	30	
7	5001.36	21,975	-73	20	0	0	0	18	38	
8	5001.29	21,911	-64	20	0	0	0	14	34	
9	5001.26	21,883	-28	20	0	0	0	14	34	
10	5001.19	21,820	-63	20	0	0	0	14	34	
11	5001.14	21,774	-46	20	0	0	0	14	34	
12	5001.07	21,711	-63	20	0	0	0	14	34	
13	5001.01	21,656	-55	20	0	0	0	15	35	
14	5000.97	21,620	-36	20	0	0	0	15	35	
15	5000.92	21,575	-45	20	0	0	0	15	35	
16	5000.86	21,521	-54	20	0	0	0	15	35	
17	5000.79	21,458	-63	20	0	0	0	15	35	
18	5000.73	21,403	-55	20	0	0	0	15	35	
19	5000.67	21,350	-53	20	0	0	0	15	35	
20	5000.62	21,305	-45	20	0	0	0	15	35	
21	5000.56	21,251	-54	20	0	0	0	15	35	
22	5000.50	21,197	-54	20	0	0	0	15	35	
23	5000.43	21,135	-62	20	0	0	0	15	35	
24	5000.39	21,099	-36	20	0	0	0	15	35	
25	5000.32	21,036	-63	20	0	0	0	15	35	
26	5000.26	20,983	-53	20	0	0	0	15	35	
27	5000.20	20,930	-53	20	0	0	0	15	35	
28	5000.14	20,877	-53	20	0	0	0	15	35	
29	5000.09	20,832	-45	20	0	0	0	15	35	
30	5000.02	20,770	-62	20	0	0	0	15	35	
31	4999.96	20,709	-61	20	0	0	0	15	35	
Total cfs-days				---	620	0	0	453	1,073	
Total ac-ft				-1,605	1,230	0	0	898	2,128	
									523	

Table 2. Frenchman Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 55,477 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs						Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage	Total Outflow		
				Stream-flow Maint.	Water Supply Contract	Water Right					
Jun 30	5570.03	31,403									
1	5569.94	31,336	-67	0	39	0	0	0	39	6	
2	5569.78	31,269	-67	0	29	0	0	5	34	0	
3	5569.75	31,203	-66	0	23	0	0	11	34	0	
4	5569.73	31,137	-66	0	23	0	0	11	34	0	
5	5569.67	31,071	-66	0	23	0	0	11	34	1	
6	5569.53	31,006	-65	0	23	0	0	11	34	1	
7	5569.57	30,940	-66	0	17	0	0	17	34	1	
8	5569.49	30,874	-66	0	24	0	0	9	33	0	
9	5569.36	30,809	-65	0	30	0	0	4	34	1	
10	5569.11	30,743	-66	0	30	0	0	4	34	1	
11	5569.06	30,678	-65	0	19	0	0	17	36	3	
12	5569.01	30,602	-76	0	14	0	0	24	38	0	
13	5568.96	30,526	-76	0	14	0	0	24	38	0	
14	5568.91	30,450	-76	0	14	0	0	24	38	0	
15	5568.86	30,374	-76	0	14	0	0	24	38	0	
16	5568.81	30,299	-75	0	14	0	0	24	38	0	
17	5568.77	30,223	-76	0	14	0	0	24	38	0	
18	5568.86	30,148	-75	0	14	0	0	24	38	0	
19	5568.82	30,062	-86	0	14	0	0	29	43	0	
20	5568.60	29,998	-64	0	14	0	0	19	33	0	
21	5568.54	29,923	-75	0	14	0	0	25	39	1	
22	5568.50	29,848	-75	0	14	0	0	25	39	1	
23	5568.43	29,773	-75	0	13	0	0	26	39	1	
24	5568.41	29,698	-75	0	13	0	0	25	38	0	
25	5568.39	29,624	-74	0	13	0	0	24	37	0	
26	5568.27	29,550	-74	0	13	0	0	24	37	0	
27	5568.30	29,476	-74	0	13	0	0	24	37	0	
28	5568.24	29,401	-75	0	20	0	0	18	38	0	
29	5568.16	29,327	-74	0	27	0	0	10	37	0	
30	5568.03	29,254	-73	0	33	0	0	4	37	0	
31	5567.97	29,176	-78	0	31	0	0	8	39	0	
Total cfs-days				---	0	610	0	529	1,139	17	
Total ac-ft				-2,227	0	1,210	0	1,050	2,260	33	

Table 3. Lake Davis

Daily Operation
(in acre-feet except as noted)

Capacity: 84,371 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs						Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage	Total Outflow		
				Stream-flow Maint.	Water Supply Contract	Water Right					
Jun 30	5767.12	55,842									
1	5767.08	55,713	-129	6	0	4	0	57	67	3	
2	5767.06	55,649	-64	6	0	4	0	24	34	2	
3	5767.03	55,553	-96	6	0	5	0	40	51	3	
4	5767.01	55,489	-64	6	0	5	0	22	33	1	
5	5767.00	55,458	-31	5	0	5	0	10	20	4	
6	5766.98	55,394	-64	5	0	5	0	25	35	3	
7	5766.94	55,266	-128	5	0	5	0	57	67	2	
8	5766.91	55,171	-95	5	0	5	0	40	50	2	
9	5766.89	55,107	-64	5	0	5	0	25	35	3	
10	5766.87	55,043	-64	5	0	5	0	24	34	2	
11	5766.85	54,980	-63	5	0	5	0	26	36	4	
12	5766.82	54,884	-96	5	0	5	0	40	50	2	
13	5766.79	54,789	-95	5	0	5	0	38	48	0	
14	5766.77	54,726	-63	5	0	5	0	22	32	0	
15	5766.72	54,567	-159	5	0	5	0	70	80	0	
16	5766.70	54,504	-63	5	0	5	0	25	35	3	
17	5766.69	54,472	-32	5	0	5	0	10	20	4	
18	5766.66	54,378	-94	5	0	5	0	39	49	2	
19	5766.63	54,283	-95	5	0	5	0	40	50	2	
20	5766.61	54,220	-63	5	0	5	0	25	35	3	
21	5766.59	54,157	-63	5	0	5	0	23	33	1	
22	5766.56	54,063	-94	5	0	5	0	38	48	1	
23	5766.55	54,031	-32	5	0	5	0	8	18	2	
24	5766.52	53,937	-94	5	0	5	0	38	48	1	
25	5766.49	53,843	-94	5	0	5	0	38	48	1	
26	5766.45	53,717	-126	5	0	5	0	56	66	2	
27	5766.42	53,623	-94	5	0	5	0	38	48	1	
28	5766.40	53,561	-62	5	0	5	0	22	32	1	
29	5766.38	53,498	-63	5	0	5	0	23	33	1	
30	5766.35	53,404	-94	4	0	5	0	39	48	1	
31	5766.31	53,280	-124	4	0	5	0	54	63	0	
Total cfs-days				---	157	0	153	0	1,036	1,346	55
Total ac-ft				-2,562	312	0	303	0	2,055	2,670	108

Table 4. Lake Oroville

Daily Operation

(in acre-feet except as noted)

Capacity: 3,537, 580 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow					Inflow	
				Hyatt Powerplant Generation 1/	Palermo Canal	Evaporation 2/	Spill	Total Outflow	Hyatt Powerplant Pumpback	Computed Inflow 3/
Jun 30	895.14	3,461,360								
	1	893.93	3,442,569	-18,791	23,604	29	426	0	24,059	0
	2	892.72	3,423,850	-18,719	24,333	29	405	0	24,767	0
	3	891.68	3,407,819	-16,031	23,822	29	440	0	24,291	0
	4	890.20	3,385,100	-22,719	26,032	29	513	0	26,574	0
	5	888.85	3,364,469	-20,631	24,270	29	474	0	24,773	0
	6	887.63	3,345,904	-18,565	24,345	29	389	0	24,763	0
	7	886.16	3,323,632	-22,272	24,940	29	350	0	25,319	0
	8	884.71	3,301,767	-21,865	26,659	29	413	0	27,101	0
	9	883.20	3,279,107	-22,660	27,504	30	365	0	27,899	0
	10	881.66	3,256,111	-22,996	27,823	30	463	0	28,316	0
	11	880.16	3,233,825	-22,286	27,234	30	406	0	27,670	0
	12	878.96	3,216,081	-17,744	23,724	30	396	0	24,150	0
	13	877.49	3,194,434	-21,647	24,843	30	376	0	25,249	0
	14	875.95	3,171,869	-22,565	27,601	30	401	0	28,032	0
	15	874.50	3,150,727	-21,142	26,290	30	435	0	26,755	0
	16	873.13	3,130,842	-19,885	25,176	30	415	0	25,621	0
	17	871.77	3,111,190	-19,652	23,680	30	448	0	24,158	0
	18	870.43	3,091,913	-19,277	25,088	30	525	0	25,643	0
	19	869.33	3,076,152	-15,761	18,620	30	444	0	19,094	0
	20	868.12	3,058,881	-17,271	21,546	30	443	0	22,019	0
	21	866.54	3,036,432	-22,449	26,443	30	381	0	26,854	0
	22	865.06	3,015,509	-20,923	26,414	30	438	0	26,882	0
	23	863.52	2,993,847	-21,662	25,651	30	419	0	26,100	0
	24	861.84	2,970,340	-23,507	25,798	30	323	0	26,151	0
	25	860.59	2,952,935	-17,405	22,538	30	340	0	22,908	0
	26	859.48	2,937,540	-15,395	19,809	30	354	0	20,193	0
	27	858.55	2,924,684	-12,856	18,101	30	352	0	18,483	0
	28	857.39	2,908,705	-15,979	22,497	30	477	0	23,004	0
	29	855.89	2,888,134	-20,571	23,472	30	434	0	23,936	0
	30	854.44	2,868,346	-19,788	23,045	30	374	0	23,449	0
	31	853.12	2,850,416	-17,930	22,338	30	371	0	22,739	0
Total				-610,944	753,240	922	12,790	0	766,952	0
1/ Includes bypass flows										
2/ Evaporation will be zero for days when there is precipitation or heavy overcast.										
3/ Does not include pumpback.										

1/ Includes bypass flows

2/ Evaporation will be zero for days when there is precipitation or heavy overcast.

3/ Does not include pumpback.

**Table 5. Thermalito Forebay
Including Diversion Pool and Power Canal**

Capacity: 25,120 ac-ft

Daily Operation
(in acre-feet except as noted)

July 2003

Date	Storage 1/	Storage Change	Inflow			Outflow					Losses (-) And Gains (+)	
			Lake Oroville Releases 2/	Kelly Ridge Generation	Thermalito Pumping- Generating Plant Pumpback	Thermalito Pumping- Generating Plant Generation 3/	Butte County 4/	Thermalito Irrigation District	Releases To River 5/	Hyatt Powerplant Pumpback		
Jun 30	23,614											
	1	23,154	-460	23,604	506	0	23,481	1	12	1,241	0	165
	2	22,710	-444	24,333	504	0	24,261	1	13	1,239	0	233
	3	22,927	217	23,822	545	0	23,044	1	13	1,239	0	147
	4	23,109	182	26,032	456	0	25,304	1	13	1,239	0	251
	5	23,256	147	24,270	499	0	23,552	1	13	1,240	0	184
	6	23,364	108	24,345	499	0	23,760	1	13	1,246	0	284
	7	23,728	364	24,940	512	0	24,044	1	13	1,238	0	208
	8	23,316	-412	26,659	504	0	26,567	2	13	1,230	0	237
	9	22,631	-685	27,504	538	0	27,625	2	13	1,237	0	150
	10	23,190	559	27,823	472	0	26,817	2	13	1,237	0	333
	11	23,214	24	27,234	532	0	26,645	2	13	1,237	0	155
	12	23,842	628	23,724	434	0	22,623	2	13	1,238	0	346
	13	23,443	-399	24,843	499	0	24,694	2	13	1,231	0	199
	14	23,471	28	27,601	510	0	27,046	2	13	1,235	0	213
	15	23,679	208	26,290	502	0	25,586	2	13	1,239	0	256
	16	23,673	-6	25,176	507	0	24,528	2	13	1,394	0	248
	17	23,415	-258	23,680	506	0	23,234	2	13	1,485	0	290
	18	23,064	-351	25,088	504	0	24,603	2	13	1,484	0	159
	19	23,311	247	18,620	421	0	17,479	2	13	1,475	0	175
	20	23,159	-152	21,546	508	0	20,820	2	13	1,481	0	110
	21	23,268	109	26,443	507	0	25,620	2	13	1,392	0	186
	22	23,557	289	26,414	506	0	25,589	2	13	1,237	0	210
	23	23,182	-375	25,651	551	0	25,357	2	13	1,374	0	169
	24	23,383	201	25,798	458	0	24,861	2	13	1,487	0	308
	25	23,012	-371	22,538	442	0	22,092	2	13	1,486	0	242
	26	23,643	631	19,809	520	0	18,255	2	13	1,484	0	56
	27	23,033	-610	18,101	487	0	17,898	2	13	1,481	0	196
	28	23,363	330	22,497	509	0	21,261	2	13	1,486	0	86
	29	22,607	-756	23,472	504	0	23,326	2	13	1,486	0	95
	30	23,749	1,142	23,045	504	0	21,076	2	13	1,486	0	170
	31	23,522	-227	22,338	504	0	21,725	2	13	1,486	0	157
Total		-92	753,240	15,450	0	732,773	55	402	41,770	0	6,218	

1/ Sum of Thermalito Forebay and Diversion Pool.

2/ Sum of releases from Lake Oroville through Hyatt plant, and spill.

3/ Includes Bypass flows at Thermalito.

4/ Includes 7 AF of entitlement water to Del Oro WD, 1 AF of recreation

water to Lime Saddle Marina, and 47 AF to Cal Water.

5/ The sum of the flows from fish barrier dam and the fish hatchery.

Table 6. Thermalito Afterbay

Daily Operation

(in acre-feet except as noted)

Capacity: 57,040 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow	Outflow						Losses (-) and Gains (+)	Total Releases to River 2/	
				Thermalito Pumping-Generating Plant Generation 1/	Sutter Butte Canal	Western Canal Lateral	Richvale Canal	Western Canal	Afterbay River Outlet	Thermalito Pumping-Generating Plant Pumpback			
Jun 30	129.47	30,413											
1	130.17	32,719	2,306	23,481	3,035	48	691	1,780	14,737	0	-884	15,978	
2	130.64	34,312	1,593	24,261	3,094	40	691	1,780	16,225	0	-838	17,464	
3	130.31	33,190	-1,122	23,044	3,174	35	691	1,710	17,732	0	-824	18,971	
4	130.66	34,380	1,190	25,304	3,154	35	722	1,650	17,732	0	-821	18,971	
5	130.53	33,936	-444	23,552	3,114	34	732	1,684	17,732	0	-700	18,972	
6	130.44	33,629	-307	23,760	3,174	32	714	1,730	17,752	0	-665	18,998	
7	130.14	32,618	-1,011	24,044	3,213	34	680	1,761	18,724	0	-643	19,962	
8	130.51	33,867	1,249	26,567	3,213	34	662	1,835	18,744	0	-830	19,974	
9	131.17	36,150	2,283	27,625	3,253	34	678	1,914	18,724	0	-739	19,961	
10	131.60	37,675	1,525	26,817	3,273	34	682	1,928	18,724	0	-651	19,961	
11	131.93	38,865	1,190	26,645	3,332	32	704	1,958	18,704	0	-725	19,941	
12	131.21	36,291	-2,574	22,623	3,352	28	710	1,976	18,724	0	-407	19,962	
13	131.02	35,625	-666	24,694	3,312	28	712	1,918	18,724	0	-666	19,955	
14	131.53	37,425	1,800	27,046	3,233	30	734	1,940	18,546	0	-763	19,781	
15	131.66	37,890	465	25,586	3,213	30	742	1,944	18,685	0	-507	19,924	
16	131.94	38,901	1,011	24,528	3,213	30	742	1,928	17,038	0	-566	18,432	
17	132.01	39,156	255	23,234	3,174	30	770	1,960	16,463	0	-582	17,948	
18	132.50	40,961	1,805	24,603	3,154	30	780	1,978	16,483	0	-373	17,967	
19	131.07	35,800	-5,161	17,479	3,114	30	793	1,976	16,483	0	-244	17,958	
20	130.49	33,799	-2,001	20,820	3,114	30	801	1,976	16,483	0	-417	17,964	
21	131.30	36,608	2,809	25,620	3,154	32	801	1,960	16,562	0	-302	17,954	
22	132.00	39,120	2,512	25,589	3,213	34	801	1,908	16,741	0	-380	17,978	
23	132.66	41,559	2,439	25,357	3,233	34	801	1,853	16,622	0	-375	17,996	
24	133.22	43,682	2,123	24,861	3,273	34	801	1,799	16,482	0	-349	17,969	
25	133.09	43,185	-497	22,092	3,213	36	799	1,759	16,482	0	-300	17,968	
26	131.98	39,047	-4,138	18,255	3,134	34	778	1,769	16,462	0	-216	17,946	
27	130.72	34,586	-4,461	17,898	3,114	35	770	1,813	16,462	0	-165	17,943	
28	130.42	33,562	-1,024	21,261	3,114	35	772	1,855	16,462	0	-47	17,948	
29	130.69	34,483	921	23,326	3,115	36	772	1,864	16,423	0	-195	17,909	
30	130.30	33,156	-1,327	21,076	3,115	36	772	1,813	16,364	0	-303	17,850	
31	130.42	33,562	406	21,725	3,074	36	772	1,771	15,392	0	-274	16,878	
Total		3,149		732,773	98,660	1,040	23,070	57,490	533,613	0	-15,751	575,383	

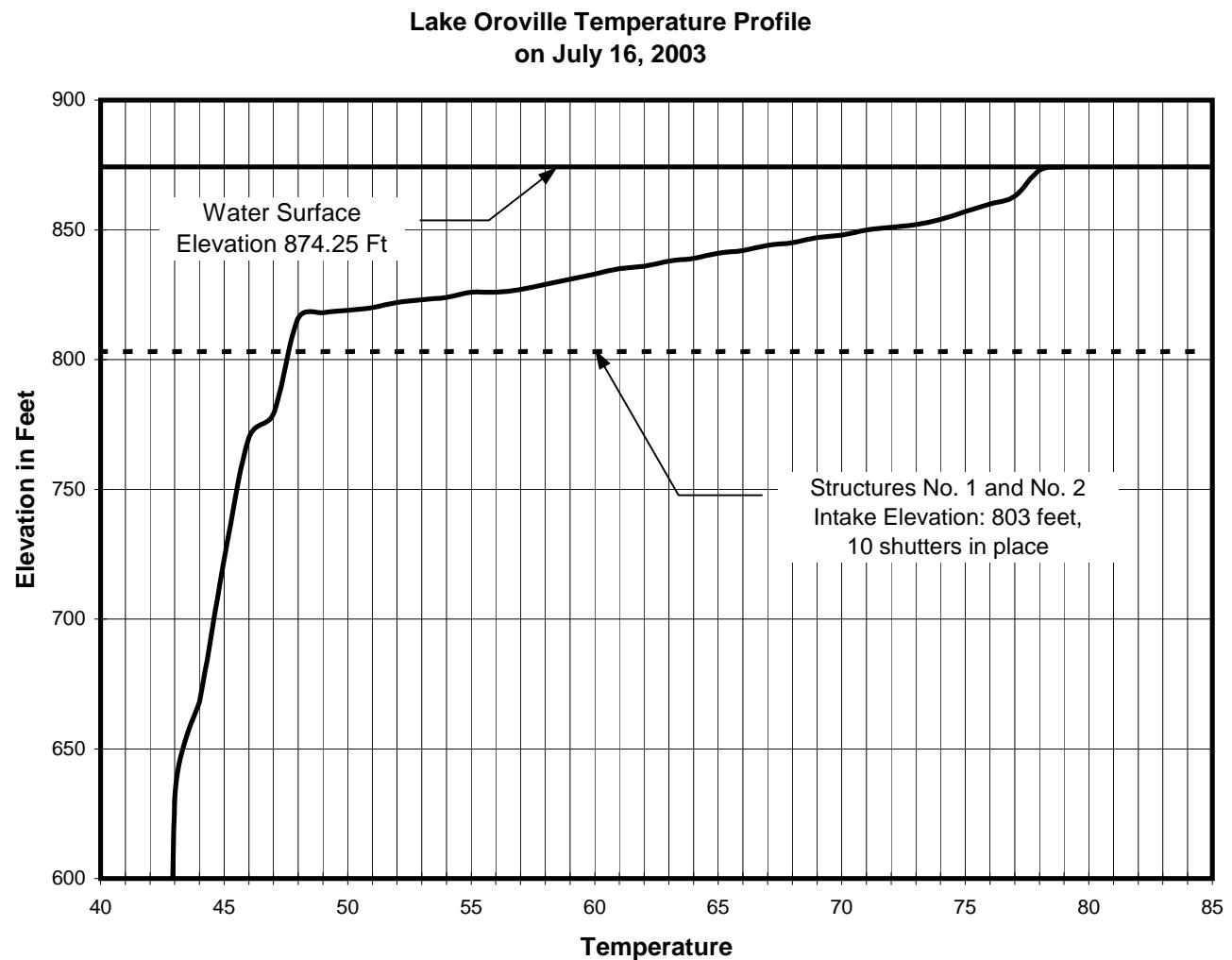
1/ Includes Bypass flows at Thermalito.

2/ The sum of the flows from the fish barrier dam, fish hatchery, and afterbay river outlet.

Table 7. Oroville-Thermalito Complex

Water Temperature Data
(in degrees Fahrenheit)
July 2003

Date	Mean Daily Temperature	
	Thermalito Afterbay Outlet	Fish Hatchery
1	62	56
2	61	57
3	61	58
4	61	58
5	61	58
6	61	58
7	61	59
8	62	60
9	62	61
10	63	61
11	63	58
12	63	58
13	62	59
14	62	59
15	62	60
16	63	60
17	64	58
18	64	58
19	62	58
20	63	58
21	63	59
22	62	60
23	63	60
24	64	58
25	63	58
26	63	58
27	64	58
28	63	58
29	63	59
30	62	59
31	62	59



Note: Water surface elevations on Table 4 are taken at Oroville Dam at midnight and may differ slightly from those shown on this table which are normally taken at mid-day and upstream from Oroville Dam.

Table 8. North Bay Aqueduct
Delta Field Division, Monthly Deliveries

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries				
	Beginning and Ending					Table A Amount		Extended Carryover		
	No.	Structure	Mile			M & I	Benicia			
1	1	Barker Slough Pumping Plant	0.17	(Into the North Bay Aqueduct)	6,558	420	366	2,515		
		Travis Surge Tank	8.78							
			8.80	Solano County Water Agency Travis Turnout	420					
			10.54	Solano County Water Agency Fairfield / Vacaville 24"	366					
				Solano County Water Agency Fairfield / Vacaville 42"	2,515					
2			17.00	Solano County Water Agency Central Solano	Stub					
3A		Cordelia Forebay	21.23			965	1,054			
		Cordelia Pumping Plant & Cordelia Spillway	21.30		2,750					
3B	2	Napa Pipeline	21.33	Solano County Water Agency Vallejo	965	219	497	15		
				Solano County Water Agency Benicia	1,054					
		Cordelia Surge Tank	23.33							
		Creston Surge Tank Connection	25.65							
			26.95	Napa County Flood Control & WCD American Canyon 2	219					
			27.27	Napa County Flood Control & WCD American Canyon 3	0					
		Napa Terminal Tank	27.58	City of Napa	497					
			27.60	Napa County Flood Control & WCD American Canyon 1	15					

Table 9. Delta Field Division Plant Data

(in acre-feet)

July 2003

Date	North Bay Aqueduct		California Aqueduct		South Bay Aqueduct			
	Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant		
			Total	SWP		Into Lake	Into Aqueduct	Gravity Flow Through Plant Into Aqueduct
1	211	99	13,297	13,297	505	0	0	77
2	210	102	13,020	13,020	495	0	0	70
3	212	89	13,071	13,071	504	0	0	72
4	195	67	13,081	13,081	475	0	0	58
5	192	73	13,038	13,038	458	0	0	66
6	197	65	13,015	13,015	452	0	0	74
7	210	102	13,016	13,016	478	0	0	73
8	200	95	13,842	13,842	508	0	0	65
9	227	58	13,841	13,841	507	0	0	60
10	210	99	13,897	13,897	535	0	0	51
11	218	96	13,848	13,848	538	0	0	44
12	217	92	13,909	13,909	495	0	0	44
13	213	92	13,926	13,926	490	0	0	44
14	214	91	14,004	14,004	498	0	0	45
15	207	80	13,927	13,927	531	0	0	46
16	225	97	13,910	13,910	508	0	0	46
17	223	97	12,942	12,942	513	0	0	33
18	210	90	12,989	12,989	538	0	0	0
19	213	88	12,970	12,970	528	0	0	0
20	215	89	12,980	12,980	508	0	0	0
21	215	91	12,894	12,894	542	0	0	0
22	223	94	12,907	12,907	545	0	0	0
23	223	99	12,894	12,894	549	0	0	0
24	219	100	12,879	12,879	538	0	0	0
25	217	95	12,923	12,923	526	0	0	0
26	213	98	12,933	12,933	513	0	0	0
27	216	92	12,899	12,899	533	0	0	0
28	210	85	11,528	11,528	538	0	0	0
29	205	81	11,552	11,552	538	0	0	0
30	204	74	11,683	11,683	542	0	0	0
31	194	80	11,740	11,740	524	0	0	0
Total	6,558	2,750	405,355	405,355	15,952	0	0	968

Table 10. Clifton Court Forebay

Daily Operation of Gates

July 2003

Date	Time								Amount of inflow in Acre-Feet
	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	
1	---	5:30	7:00	13:15	17:30	20:30	22:20	---	13,249
2	---	6:15	8:15	14:00	17:45	21:00	22:30	---	13,238
3	---	7:00	8:50	14:30	18:00	21:45			13,232
4	0:01	8:00	9:30	15:00	18:50	22:15	23:45	---	13,245
5	---	9:00	10:30	15:30	19:20	23:00			13,245
6	0:30	10:00	11:38	16:00	19:45	23:45			13,223
7	1:15	11:30	12:30	16:30	20:00	---			13,237
8	---	0:15	1:15	11:30	12:30	---			14,227
9	---	0:15	2:45	8:00	11:00	14:15	15:45	23:45	14,231
10	0:10	2:00	3:30	9:15	12:15	15:45	17:15	23:30	14,223
11	0:15	2:45	4:15	10:15	13:15	17:00	18:30	22:30	14,208
12	0:01	3:15	4:45	11:15	14:50	18:00	19:30	22:50	14,145
13	0:01	4:00	5:30	12:00	16:00	19:00	20:30	---	14,227
14	---	4:45	6:15	12:45	17:02	19:45	21:15	---	14,231
15	---	5:45	7:15	13:30	17:06	20:30	22:10	---	14,224
16	---	6:30	8:00	14:00	18:29	21:00	22:30	---	14,004
17	---	7:15	8:45	14:30	19:00	21:45	23:15	---	13,117
18	---	8:15	10:00	14:45	19:11	22:15	23:45	---	12,840
19	---	9:00	10:30	15:15	19:02	22:45			12,896
20	0:16	10:15	11:45	15:30	19:00	23:30			13,121
21	1:00	11:30	13:00	16:00	19:00	23:20			13,140
22	1:30	6:45	9:45	13:00	14:30	22:30			13,164
23	2:00	7:45	10:45	14:30	16:00	---			13,200
24	---	1:00	2:30	8:45	12:15	15:45	17:15	---	13,230
25	---	1:45	3:15	9:45	13:01	16:45	18:15	---	13,230
26	---	2:40	4:00	10:30	14:00	17:45	19:20	---	13,204
27	---	3:00	4:30	11:00	14:45	18:15	20:01	22:34	13,234
28	0:15	3:45	5:15	11:45	16:30	19:00	20:35	22:24	11,888
29	0:16	4:30	6:00	12:15	16:45	19:30			11,874
30	0:16	5:30	7:00	12:45	17:40	20:00	21:30	---	11,899
31	---	6:15	7:45	13:15	18:40	20:30	22:05	---	11,880
Total inflow for the month in AF:									412,306

Table 11. Governor Edmund G. Brown California Aqueduct
 Delta Field Division, Monthly Deliveries

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	USBR	Local	Loan Water	Dry Year Purchase		
	No.	Structure	Mile									
1	Banks Pumping Plant	3.32			405,355	72	72	0	0			
	1	South Bay Pumping Plant	4.49	Bethany Reservoir Inlet	15,952							
		Check No. 1	5.95									
	2	Check No. 2	12.01									
	3		12.47	Musco Olive	72							
		Check No. 3	18.29									
	4		22.16	Tracy Golf & Country Club	0							
		Check No. 4	23.99									
	5	Check No. 5	29.73			37	181	371	163	355		
	6	Check No. 6	34.24									
	7		35.22	Turlock Fruit Company Inflow	0							
		Check No. 7	39.91									
	8		42.46	Oak Flat Water District-A	37							
			42.9	Western Hills WD	181							
			43.81	Oak Flat Water District-B	371							
			44.64	Oak Flat Water District-C	163							
		Check No. 8	45.97									
	9		46.18	Oak Flat Water District-D	355	926	0	0	0	0		
				Oak Flat Totals:	926							
2B	Check No. 9	51.3										
	10	Check No. 10	56.86									
	11	Check No. 11	61.4									
	12		66.14	Veteran's Cemetery	14							
		Check No. 12	66.71		361,065							

Table 12. South Bay Aqueduct
Delta Field Division, Monthly Deliveries

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries						
	Beginning and Ending					Table A Amount	Purchase Pool A	Purchase Pool B	Local	Recre-ation		
	No.	Structure	Mile									
1	1	South Bay Pumping Plant	0.00	(into South Bay Aqueduct)	15,952	8	29	1,098	287	15		
			3.17	Granite - Vasco Rd. (Temp.)	0							
			3.18	Oakland Scavenger Zone 7	8							
	2	Check No. 1	3.91									
		Check No. 2	5.21									
2	3		7.21	Zone 7 Altamont	29							
		Check No. 3	9.49	Zone 7 Patterson Inflow Exchange	0							
				Zone 7 Patterson Project Water	1,098							
4	6	4	Check No. 4	10.68		1,084	287	15	36	287		
		5	Check No. 5	12.29								
				13.55	Zone 7 Wente #1							
				14.16	Zone 7 Wente #2							
	7			14.31	Ising Project Water							
		Check No. 6	14.65									
				14.78	Zone 7 Arroyo Mocho Project Water							
		Check No. 7	16.38									
5	8			16.57	Zone 7 Wente #3	495	14	62	94	65		
				16.69	Zone 7 Norman Nursery							
				16.70	Zone 7 Concannon Project Water							
					Zone 7 Wente #4							
		Del Valle Branch Pipeline Junction	18.63	(Pumped into Lake Del Valle)	0							
	9	Deliveries through Del Valle Branch Pipeline		(Flow into South Bay Aqueduct)	0							
				Arroyo Valle #1 & #2 Project Water	495							
				Arroyo Valle #1 & #2 Inflow Released	65							
				Lake Del Valle Recreation	26							
				Zone 7 Wente #5	109							
6	19.20			So. Livermore Project	2,821	2,821	217	700	26	65		
				So. Livermore Inflow Released	0							
				So. Livermore Stored Exchanged	0							
				Zone 7 - Kalthrof Detjens	217							
7	22.50	La Costa Tunnel		ACWD Vallecitos Project Water	700	2,416	65	65	65	65		
				City of San Francisco San Antonio	0							
8	25.97	Mission Tunnel		ACWD - Bayside 1 & 2 Project Water:	2,416	2,416	65	65	65	65		
				Inflow Released	65							
9	28.97	Santa Clara Pipeline		Inflow Exchange:	0	7,295						
				S.C.V.W.D. Meter	7,295							

Table 13. Lake Del Valle

Daily Operation

Capacity: 77,106 ac-ft

July 2003

Date	Water Surface Elevation (feet)	Storage	Storage Change	Inflow		Outflow					Precipitation (inches)
				Natural 1/	From South Bay Aqueduct	Arroyo Valle	South Bay Aqueduct	Recreation Deliveries 2/	Evaporation	Total Outflow	
Jun 30	702.34	39,449									
1	702.23	39,372	-77	14	0	0	77	0	14	91	0.00
2	702.11	39,288	-84	1	0	0	70	0	15	85	0.00
3	702.00	39,211	-77	11	0	0	72	0	16	88	0.00
4	701.90	39,141	-70	7	0	0	58	0	19	77	0.00
5	701.78	39,057	-84	2	0	0	66	0	20	86	0.00
6	701.66	38,973	-84	6	0	0	74	1	15	90	0.00
7	701.54	38,890	-83	4	0	0	73	1	13	87	0.00
8	701.43	38,813	-77	4	0	0	65	1	15	81	0.00
9	701.33	38,744	-69	7	0	0	60	1	15	76	0.00
10	701.24	38,681	-63	4	0	0	51	1	15	67	0.00
11	701.16	38,626	-55	5	0	0	44	1	15	60	0.00
12	701.07	38,564	-62	0	0	0	44	1	17	62	0.00
13	700.99	38,508	-56	5	0	0	44	1	16	61	0.00
14	700.92	38,460	-48	14	0	0	45	1	16	62	0.00
15	700.83	38,398	-62	1	0	0	46	1	16	63	0.00
16	700.75	38,343	-55	11	0	0	46	1	19	66	0.00
17	700.69	38,301	-42	11	0	0	33	1	19	53	0.00
18	700.67	38,287	-14	6	0	0	0	1	19	20	0.00
19	700.63	38,260	-27	-5	0	0	0	1	21	22	0.00
20	700.62	38,253	-7	11	0	0	0	1	17	18	0.00
21	700.59	38,232	-21	-2	0	0	0	1	18	19	0.00
22	700.57	38,218	-14	6	0	0	0	1	19	20	0.00
23	700.56	38,212	-6	14	0	0	0	1	19	20	0.00
24	700.53	38,191	-21	-7	0	0	0	1	13	14	0.00
25	700.51	38,177	-14	2	0	0	0	1	15	16	0.00
26	700.49	38,163	-14	0	0	0	0	1	13	14	0.00
27	700.46	38,143	-20	-2	0	0	0	1	17	18	0.00
28	700.43	38,122	-21	-3	0	0	0	1	17	18	0.00
29	700.41	38,108	-14	7	0	0	0	1	20	21	0.00
30	700.39	38,095	-13	3	0	0	0	1	15	16	0.00
31	700.36	38,074	-21	-6	0	0	0	1	14	15	0.00
Total				-1,375	130	0	0	968	26	511	1,505
1/ Total inflow from stream gaging station above Lang Canyon and accretions/depletions.											
2/ To East Bay Regional Park District.											
NR=No Records											

Table 14. Consolidated State-Federal O'Neill Forebay

Daily Operations

July 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

Capacity 56,430 ac-ft

State of California

The Resources Agency

Department of Water Resources

State Water Project

Date	Water Surface Elevation (in feet)	Storage (ac-ft)	Storage Change	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)	
				Pump In 1/	O'Neill Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	California Aqueduct	O'Neill Pumping Generating Plant (Generation)	Gianelli Pumping Generating Plant (Pumped)	Dos Amigos Pumping Plant	Deliveries 2/		
Jun 30	221.61	47,362											
1	222.07	48,571	1,209	0	478	4,426	6,188	100	382	10,284	38	322	
2	220.57	44,635	-3,936	0	393	2,237	6,262	0	1,331	9,533	39	27	
3	220.23	43,749	-886	0	348	4,244	5,709	148	1,614	9,497	13	524	
4	220.04	43,256	-493	0	406	3,351	6,012	233	0	10,022	13	250	
5	220.52	44,505	1,249	0	396	4,758	5,507	224	0	9,775	13	-19	
6	220.14	43,515	-990	0	395	3,336	6,192	231	0	10,611	13	433	
7	220.50	44,453	938	0	435	3,326	5,927	232	0	9,356	13	386	
8	219.94	42,997	-1,456	0	391	2,212	6,026	233	0	9,239	13	122	
9	220.21	43,697	700	0	142	6,003	5,831	89	1,783	10,012	15	276	
10	219.77	42,557	-1,140	0	0	4,630	6,453	0	1,010	11,206	75	633	
11	220.98	45,708	3,151	0	0	6,772	6,153	190	0	11,049	75	-22	
12	220.99	45,734	26	0	0	4,374	6,285	267	0	10,494	75	190	
13	220.03	43,230	-2,504	0	0	4,700	6,484	260	0	12,442	75	331	
14	220.31	43,957	727	0	0	4,353	6,114	225	0	10,199	75	399	
15	220.49	44,427	470	0	0	4,765	6,320	79	0	10,743	75	49	
16	219.50	41,862	-2,565	0	0	4,678	6,413	0	1,163	11,541	77	397	
17	219.70	42,376	514	0	0	6,145	5,750	271	0	12,011	15	661	
18	220.70	44,975	2,599	0	0	6,692	5,911	365	0	11,360	15	447	
19	221.50	47,073	2,098	0	0	6,546	5,731	280	0	11,380	15	456	
20	220.31	43,957	-3,116	0	0	4,172	5,774	198	0	11,271	15	-33	
21	221.63	47,414	3,457	0	307	7,146	5,593	256	0	11,196	15	164	
22	222.07	48,571	1,157	0	429	5,667	5,676	331	0	10,890	15	47	
23	221.02	45,813	-2,758	0	152	4,531	5,881	124	1,374	10,681	17	242	
24	221.12	46,075	262	0	0	5,344	5,934	0	588	10,791	27	260	
25	221.34	46,653	578	0	0	5,046	5,757	0	0	11,067	27	582	
26	221.57	47,257	604	0	0	4,482	5,938	419	0	10,316	27	647	
27	219.40	41,605	-5,652	0	0	2,292	5,640	654	0	10,401	27	300	
28	220.00	43,152	1,547	0	0	5,319	5,073	487	0	9,267	27	169	
29	220.90	45,498	2,346	0	0	5,640	5,123	434	0	9,396	27	277	
30	221.17	46,206	708	0	0	5,332	5,113	703	0	9,508	30	153	
31	221.16	46,180	-26	0	0	5,159	5,264	915	0	9,705	307	491	
Total				-1,182	0	4,272	147,678	182,034	7,948	9,245	325,243	1,303	9,159
Mean cfs				- - -	0	138	4,764	5,872	256	298	10,492	42	295
Acre-feet				-1,182	0	8,472	292,920	361,065	15,767	18,338	645,119	2,585	18,170

1/ Pump-in located at Mile 79.67R.

2/ Includes 168 AF delivered to DFG at O'Neill Forebay, 24 AF to Parks and Recreation, 1 AF to the Cattle Program, and 2,392 AF to SLWD.

Table 15. Consolidated State-Federal San Luis Reservoir

Daily Operations

July 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 2,027,835 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)	Outflow (cfs)			Computed Losses (-) Gains (+) (cfs)
				Gianelli Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	Pacheco Tunnel 1/	Parks and Rec. Del.	
Jun 30	473.82	1,217,645						
1	472.91	1,207,947	-9,698	382	4,426	296	0	-549
2	472.68	1,205,499	-2,448	1,331	2,237	292	0	-36
3	472.14	1,199,759	-5,740	1,614	4,244	330	0	66
4	471.47	1,192,650	-7,109	0	3,351	323	0	90
5	470.50	1,182,381	-10,269	0	4,758	314	0	-105
6	469.77	1,174,672	-7,709	0	3,336	284	0	-267
7	469.08	1,167,400	-7,272	0	3,326	237	0	-103
8	468.59	1,162,245	-5,155	0	2,212	287	0	-100
9	467.69	1,152,796	-9,449	1,783	6,003	308	0	-236
10	466.97	1,145,254	-7,542	1,010	4,630	332	0	150
11	465.63	1,131,260	-13,994	0	6,772	325	0	42
12	464.74	1,121,997	-9,263	0	4,374	327	0	31
13	463.78	1,112,033	-9,964	0	4,700	320	0	-3
14	462.89	1,102,821	-9,212	0	4,353	330	0	39
15	461.91	1,092,707	-10,114	0	4,765	336	0	2
16	461.18	1,085,192	-7,515	1,163	4,678	357	0	83
17	459.88	1,071,853	-13,339	0	6,145	345	0	-235
18	458.47	1,057,446	-14,407	0	6,692	358	0	-213
19	457.07	1,043,204	-14,242	0	6,546	373	0	-261
20	456.18	1,034,184	-9,020	0	4,172	362	0	-14
21	454.75	1,019,745	-14,439	0	7,146	353	0	219
22	453.51	1,007,279	-12,466	0	5,667	354	0	-264
23	452.79	1,000,064	-7,215	1,374	4,531	354	0	-127
24	451.78	989,972	-10,092	588	5,344	355	0	23
25	450.65	978,721	-11,251	0	5,046	384	0	-242
26	449.63	968,603	-10,118	0	4,482	356	0	-263
27	449.09	963,260	-5,343	0	2,292	355	0	-47
28	447.97	952,211	-11,049	0	5,319	337	0	86
29	446.75	940,223	-11,988	0	5,640	353	0	-51
30	445.60	928,970	-11,253	0	5,332	354	0	13
31	444.51	918,347	-10,623	0	5,159	346	3	152
Total			-299,298	9,245	147,678	10,337	3	-2,120
Mean cfs			---	298	4,764	333	0	-68
Acre-feet			-299,298	18,338	292,920	20,505	3	-4,208

1/ Pacheco Tunnel, San Felipe Split; Santa Clara: 15,341 AF, San Benito: 5,164 AF.

Table 16. San Luis Field Division Plant Data

(in acre-feet)

July 2003

Date	Dos Amigos Pumping Plant		Gianelli Pumping - Generating Plant				San Felipe Project
	Total Pumping	SWP Pumping 1/ 2/	Total Generation	SWP Generation 1/ 2/	Total Pumping	SWP Pumping 1/ 2/	Federal
1	20,398	12,547	8,779	-299	757	757	587
2	18,909	11,056	4,438	39	2,640	2,640	579
3	18,837	11,101	8,417	2,162	3,202	3,202	654
4	19,878	12,192	6,647	341	0	0	640
5	19,389	11,648	9,438	705	0	0	622
6	21,046	13,263	6,616	439	0	0	563
7	18,558	10,824	6,598	208	0	0	471
8	18,326	10,587	4,388	173	0	0	570
9	19,858	12,292	11,907	3,341	3,537	3,537	611
10	22,227	14,573	9,183	2,009	2,004	2,004	659
11	21,916	14,335	13,433	4,923	0	0	645
12	20,815	13,209	8,675	1,893	0	0	649
13	24,679	17,096	9,322	2,840	0	0	635
14	20,229	12,567	8,635	2,248	0	0	655
15	21,309	13,772	9,451	1,392	0	0	666
16	22,891	15,192	9,279	3,180	2,306	2,306	709
17	23,823	16,156	12,189	5,324	0	0	684
18	22,532	14,854	13,273	6,294	0	0	710
19	22,572	14,882	12,983	5,269	0	0	739
20	22,357	14,729	8,276	5,116	0	0	718
21	22,208	14,591	14,174	6,613	0	0	700
22	21,601	14,022	11,240	3,342	0	0	702
23	21,185	13,559	8,988	3,076	2,725	2,725	702
24	21,404	13,601	10,599	4,675	1,167	1,167	705
25	21,952	14,170	10,009	3,803	0	0	762
26	20,462	12,682	8,890	1,284	0	0	706
27	20,631	12,924	4,546	102	0	0	704
28	18,382	10,675	10,551	1,672	0	0	668
29	18,636	10,820	11,186	3,259	0	0	701
30	18,860	11,124	10,577	1,563	0	0	702
31	19,249	11,479	10,233	1,197	0	0	687
Total	645,119	406,522	292,920	78,183	18,338	18,338	20,505

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

2/ Provisional, subject to change.

Table 17. Consolidated State-Federal Los Banos Reservoir

Daily Operations

July 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity 34,560 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft)
					Spill	Outlet	
Jun 30	326.55	19,993					
1	326.53	19,984	-9	0	0	0	-9
2	326.51	19,975	-9	0	0	0	-9
3	326.48	19,961	-14	0	0	0	-14
4	326.46	19,952	-9	0	0	0	-9
5	326.42	19,933	-19	0	0	0	-19
6	326.38	19,915	-18	0	0	0	-18
7	326.35	19,901	-14	0	0	0	-14
8	326.33	19,892	-9	0	0	0	-9
9	326.30	19,878	-14	0	0	0	-14
10	326.27	19,864	-14	0	0	0	-14
11	326.36	19,906	42	21	0	0	0
12	326.35	19,901	-5	0	0	0	-5
13	326.30	19,878	-23	0	0	0	-23
14	326.31	19,882	4	2	0	0	0
15	326.31	19,882	0	0	0	0	0
16	326.31	19,882	0	0	0	0	0
17	326.33	19,892	10	5	0	0	0
18	326.35	19,901	9	5	0	0	-1
19	326.34	19,896	-5	0	0	0	-5
20	326.33	19,892	-4	0	0	0	-4
21	326.32	19,887	-5	0	0	0	-5
22	326.31	19,882	-5	0	0	0	-5
23	326.27	19,864	-18	0	0	0	-18
24	326.23	19,846	-18	0	0	0	-18
25	326.17	19,818	-28	0	0	0	-28
26	326.16	19,813	-5	0	0	0	-5
27	326.19	19,827	14	7	0	0	0
28	326.17	19,818	-9	0	0	0	-9
29	326.20	19,832	14	7	0	0	0
30	326.10	19,786	-46	0	0	0	-46
31	325.96	19,722	-64	0	0	0	-64
Total			-271	47	0	0	-365
Mean cfs			---	2	0	0	---
Acre-feet			-271	93	0	0	-365

Table 18. Consolidated State-Federal Little Panoche Reservoir

Daily Operations

July 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

Capacity: 5,580 ac-ft

State of California

The Resources Agency

Department of Water Resources

State Water Project

Date	Water Surface Elev. (in feet)	Storage (ac-ft) 1/	Storage Change (ac-ft) 1/	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft) 1/
					Spill	Outlet	
Jun 30	601.35	755					
1	601.30	752	-3	0	0	0	-3
2	Not Observed			0	0	0	
3	Not Observed			0	0	0	
4	601.25	750	-2	0	0	0	-2
5	Not Observed			0	0	0	
6	Not Observed			0	0	0	
7	Not Observed			0	0	0	
8	601.25	750	0	0	0	0	0
9	Not Observed			0	0	0	
10	601.10	741	-9	0	0	0	-9
11	601.10	741	0	0	0	0	0
12	601.10	741	0	1	0	1	0
13	601.00	736	-5	0	0	0	-5
14	601.05	739	3	2	0	0	-1
15	601.05	739	0	0	0	0	0
16	601.00	736	-3	0	0	0	-3
17	600.90	731	-5	0	0	0	-5
18	600.85	728	-3	0	0	0	-3
19	Not Observed			0	0	0	
20	Not Observed			0	0	0	
21	600.80	725	-3	0	0	0	-3
22	Not Observed			0	0	0	
23	600.75	723	-2	0	0	0	-2
24	Not Observed			0	0	0	
25	600.70	720	-3	0	0	0	-3
26	600.75	723	3	2	0	0	-1
27	600.75	723	0	0	0	0	0
28	600.65	717	-6	0	0	0	-6
29	600.60	715	-2	0	0	0	-2
30	600.60	715	0	0	0	0	0
31	600.58	714	-1	0	0	0	-1
Total			-41	5	0	1	-49
Mean cfs			---	0	0	0	---
Acre-feet			-41	10	0	2	-49

1/ Not available on a daily basis

Table 19a. Governor Edmund G. Brown California Aqueduct

San Luis Field Division, Monthly Deliveries

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries					
		Beginning and Ending				USBR	Transfer	DWR Recreation	USBR Recreation		
	No.	Structure	Mile								
2B	12	Check No. 12	66.71		361,065						
3A		San Luis Reservoir		Department of Parks and Recreation	3	15,341	2	1			
				San Felipe Division Santa Clara Water District	15,341						
				San Felipe Division San Benito Water District	5,164						
3	13	O'Neill Forebay	70.85	Department of Parks and Recreation	24	2,392	13	11			
				Cattle Program	1		1	0			
				Department of Fish & Game	168						
			70.91 Thru 85.08	San Luis Water District	2,392	2,392	92	76			
				(Floodwater Inflow)	0						
				Reach 3 Subtotal:	2,585	2,392	0	106	87		
			Check No. 13								
			86.73 Dos Amigos Pumping Plant		645,119						
4			89.03 Thru 94.06	San Luis Water District	12,799	12,799	2,742	49			
				Pacheco Water District	2,742						
				Panoche Water District	49						
				City of Dos Palos	197						
			Check No. 14	95.06							
4	15		98.15 Thru 104.20	San Luis Water District	1,491	1,491	12,714	3			
				Panoche Water District	12,714						
				(Floodwater Inflow)	0						
			102.64	Broadview Water District	3	27,046					
			102.64	Westlands Water District	27,046						
			105.22 Thru 108.64								
			Check No. 15	108.50							
			San Felipe Division Total:	20,505	20,505	0	0	0	0		
			Pacheco Water District Total:	2,742	2,742	0	0	0	0		
			Broadview Water District Total:	3	3	0	0	0	0		
			City of Dos Palos Total:	197	197	0	0	0	0		
			SLWD Reach 4 Subtotal:	16,682	16,682	0	0	0	0		
			Panoche Water District Total:	12,763	12,763	0	0	0	0		
			SLWD Total:	16,682	16,682	0	0	0	0		
			Westlands WD Reach 4 Subtotal:	27,046	27,046	0	0	0	0		

Table 19b. Governor Edmund G. Brown California Aqueduct

San Luis Field Division, Monthly Deliveries (Continued)

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries							
		Beginning and Ending				USBR	Transfer	DWR Recreation	USBR Recreation				
		No.	Structure	Mile									
5	16		110.52	(Reverse flow, Kings River)	0	30,328		1	1				
			Thru	Westlands Water District	30,328								
			122.05	Department of Fish and Game	2								
		Check No. 16	122.07										
	17		124.18	Westlands Water District	22,906	22,906							
			Thru										
		Check No. 17	132.95										
	18		133.81	Westlands Water District	25,756	25,756							
			Thru										
			142.61										
		Pleasant Valley Pumping Plant	143.16	Westlands Water District	15,950								
			143.16	City of Coalinga	1,026								
		Check No. 18	143.23										
				Westlands WD Reach 5 Subtotal:	94,942	94,940	0	1	1				
6	19		145.26	Westlands Water District	40,961	40,961							
			Thru										
		Check No. 19	155.64										
				Westlands WD Reach 6 Subtotal:	40,961	40,961	0	0	0				
7	20		156.34	City of Huron	123	123	1/ 250						
			156.40	Westlands Water District	19,949								
			Thru										
		Check No. 20	163.69										
			164.69			313							
	21		164.79	City of Avenal	313								
			167.04	Westlands Water District	6,139								
			Thru										
		Check No. 21	171.67										
			172.40		444,295								
				Reach 7 Total:	26,524	26,274	250	0	0				
				Westlands WD Total:	189,035	188,785	250	0	0				
				City of Coalinga Total:	1,026	1,026	0	0	0				
				City of Huron Total:	123	123	0	0	0				
				City of Avenal Total:	313	313	0	0	0				
Total San Luis Field Division Deliveries:					243,587	243,139	250	108	89				

1/ Common Landowner transfer from Tulare Lake Basin WSD to Westlake Farms.

Table 20. Consolidated State-Federal San Luis Canal 1/

Daily Operations

July 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Date	Storage In Canal (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
			Non- Project 2/	Dos Amigos Pumping Plant	Pools 14 & 15 3/	Pool 15	Pools 15 thru 21 4/	Flow Past Check 21	
Jun 30	29,642								
1	30,803	1,161	0	10,284	264	209	3,759	7,082	1,615
2	30,196	-607	0	9,533	293	219	3,759	6,566	998
3	29,993	-203	0	9,497	236	250	3,683	6,540	1,110
4	29,642	-351	0	10,022	236	250	3,683	6,902	872
5	29,624	-18	0	9,775	236	250	3,683	6,732	1,117
6	30,028	404	0	10,611	236	250	3,683	7,307	1,069
7	30,554	526	0	9,356	236	250	3,683	6,444	1,522
8	29,855	-699	0	9,239	236	250	3,683	6,363	941
9	29,095	-760	0	10,012	263	262	2,474	6,895	-501
10	29,578	483	0	11,206	251	207	2,474	7,718	-312
11	29,807	229	0	11,049	251	207	2,474	7,610	-392
12	29,297	-510	0	10,494	251	207	2,474	7,227	-592
13	30,730	1,433	0	12,442	251	207	2,474	8,569	-219
14	29,660	-1,070	0	10,199	251	207	2,474	7,024	-782
15	29,528	-132	0	10,743	251	207	2,474	7,399	-479
16	29,241	-287	0	11,541	281	217	2,421	7,948	-819
17	30,449	1,208	0	12,011	483	202	2,421	8,272	-24
18	30,141	-308	0	11,360	483	202	2,421	7,824	-585
19	29,940	-201	0	11,380	483	202	2,421	7,837	-538
20	30,124	184	0	11,271	483	202	2,421	7,763	-309
21	29,900	-224	0	11,196	483	202	2,421	7,711	-492
22	30,227	327	0	10,890	483	202	2,421	7,500	-119
23	29,881	-346	0	10,681	500	212	3,538	7,356	751
24	29,230	-651	0	10,791	155	166	3,538	7,432	172
25	29,609	379	0	11,067	155	166	3,538	7,622	605
26	30,051	442	0	10,316	155	166	3,538	7,105	871
27	30,517	466	0	10,401	155	166	3,538	7,164	857
28	30,353	-164	0	9,267	155	166	3,538	6,382	891
29	30,042	-311	0	9,396	155	166	3,538	6,470	776
30	30,107	65	0	9,508	155	166	3,679	6,548	1,073
31	30,304	197	0	9,705	180	200	3,717	6,683	1,174
Total		662	0	325,243	8,686	6,435	96,043	223,995	10,250
Mean cfs		---	0	10,492	280	208	3,098	7,226	331
Acre-feet		662	0	645,119	17,229	12,763	190,502	444,295	20,332

1/ San Luis Canal includes Pools 14 through 21 of the California Aqueduct.

2/ Pump In of Non-Project Water and Flood Water is included in the gain or loss.

3/ Includes 2,740 AF AG & 2 AF M&I to Pacheco W.D. and 197 AF to the City of Dos Palos.

4/ Includes 123 AF to the City of Huron, 313 AF to the City of Avenal, 1,026 AF to the City of Coalinga, 2 AF to F&G @ WWD Lateral 4L, 3 AF to Broadview W.D., and 189,035 AF to Westlands WD.

Table 21. San Joaquin Field Division Plant Data

(in acre-feet)

July 2003

Date	Coastal Aqueduct					California Aqueduct			
	Las Perillas Pumping Plant	Badger Hill Pumping Plant	Devil's Den Pumping Plant	Bluestone Pumping Plant	Polonio Pass Pumping Plant	Buena Vista Pumping Plant	Teerink Pumping Plant	Chrisman Pumping Plant	Edmonston Pumping Plant
1	473	473	98	93	99	5,884	5,426	5,042	4,816
2	468	468	109	104	110	6,124	5,544	5,184	5,047
3	478	478	116	109	116	5,644	5,254	4,851	4,708
4	608	608	107	101	105	6,827	6,291	5,895	5,801
5	645	645	128	121	125	5,814	5,460	5,198	5,130
6	627	627	126	118	127	7,887	7,504	7,222	7,091
7	468	468	90	83	93	5,921	5,443	5,067	4,928
8	461	461	105	99	105	5,536	5,272	4,829	4,693
9	465	465	90	85	92	6,427	5,811	5,389	5,289
10	503	503	117	112	116	6,152	5,550	5,128	4,928
11	489	489	113	107	114	6,004	5,645	5,293	5,150
12	624	624	118	114	117	6,531	6,013	5,644	5,500
13	679	679	146	136	145	8,549	8,391	7,919	7,898
14	481	481	81	75	82	6,770	6,440	6,058	5,979
15	491	491	115	111	105	6,353	6,087	5,684	5,553
16	512	512	134	130	131	7,278	6,385	6,042	5,823
17	509	509	120	115	121	7,285	6,552	6,135	6,008
18	496	496	140	135	135	7,060	6,601	6,184	6,008
19	618	618	121	114	118	7,216	6,769	6,310	6,256
20	657	657	143	132	142	8,362	8,247	7,862	7,789
21	472	472	65	60	67	7,331	6,864	6,553	6,470
22	508	508	115	109	114	7,144	6,949	6,586	6,469
23	505	505	139	135	133	7,369	6,945	6,509	6,441
24	509	509	135	131	132	7,371	7,023	6,590	6,387
25	522	522	135	129	131	6,826	6,229	5,813	5,632
26	640	640	129	125	124	6,122	5,661	5,255	5,230
27	681	681	147	139	148	5,967	5,484	5,199	5,173
28	472	472	96	91	98	5,792	5,357	5,084	4,939
29	499	499	117	112	116	5,953	5,381	5,030	4,962
30	495	495	101	98	97	6,089	5,560	5,233	5,150
31	519	519	153	149	150	6,207	5,702	5,332	5,037
Total	16,574	16,574	3,649	3,472	3,608	205,795	191,840	180,120	176,285

Table 22a. Governor Edmund G. Brown California Aqueduct

San Joaquin Field Division, Monthly Deliveries

July 2003

(In acre-feet)

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries							
	Beginning and Ending					Table A Amount	USBR	Purch. Pool A	Purch. Pool B	Dry Year Purchase	Other		
	No.	Structure	Mile										
7	21	Check No. 21	172.40		444,295								
8C	22			Empire West Side Irrig. Dist. TL - A	0	500 192 608 270 1,231 4,905 12,171 4 2,727	8	810 102					
				County of Kings TL - A	500								
				TLBWS D TL-A	200								
				175.18 DRWD - 1	608								
				177.54 DRWD - 1B	270								
				180.64 TLBWS D - C	0								
				180.65 DRWD - 1A	1,231								
				182.99 DRWD - 2	4,905								
				183.00 Tulare Lake Basin WSD TL - B	13,083								
				184.00 DRWD - Paramount	4								
31A				184.63 Coastal Branch	16,574								
8D				184.78 Dudley Ridge Water Dist. DRWD - 3	2,727								
				Dudley Ridge Reach 8D Total:	9,745								
				Tulare Lake Basin WSD Total:	13,283								
				Check No. 22	184.82								
				189.69 Kern County Water Agency Lost Hills Water Dist. - 1	7,678	6,660 1,574 582 2,474	902 116						
9	23			191.18 Kern County Water Agency Lost Hills Water Dist. - 2	1,574								
				194.22 Kern County Water Agency Lost Hills Water Dist. - 3	582								
				196.40 Kern County Water Agency Berrenda Mesa - 2	0								
				196.75 Kern County Water Agency Lost Hills Water Dist. - 4	2,474								
				K.C.W.A. Reach 9 Subtotal:	12,308								
				Check No. 23	197.05								
10A	24			201.24 Kern County Water Agency Lost Hills Water Dist. - 7	673	673 676 19 2,013 938	902 116						
				202.05 Kern County Water Agency Lost Hills Water Dist. - 5	676								
				204.69 Kern County Water Agency Lost Hills Water Dist. - 6	0								
				205.26 Kern County Water Agency Lost Hills Water Dist. - 8	19								
				Check No. 24	207.94								
10A	25			209.71 Kern County Water Agency Belridge Water Storage Dist. - 1A	3,070	2,013 938 24,072 15,447	937 120						
				209.78 Kern National Wildlife Refuge USBR BV-1B	938								
				Kern County Water Agency Buena Vista WSD 1B	0								
				209.80 KCWA Semitropic WSD	45,050								
				KCWA Semitropic WSD Penstocks	15,447								
				USBR Total:	0								
				K.C.W.A. Reach 10A Subtotal:	65,873	43,838	0	2,110	271	4,714	14,940		

1/ MWD's Table A to Semi Tropic for storage.

Table 22b. Governor Edmund G. Brown California Aqueduct
San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries								
	Beginning and Ending					Table A Amount	Recovery of Pump In	Purchase Pool A	Purchase Pool B	MWD Ent.				
	No.	Structure	Mile											
11B	25	210.75	Kern County Water Agency Belridge - 2	0	269	269								
		214.11	Kern County Water Agency Belridge - 3	269										
		216.62	Kern County Water Agency Belridge - 4	0										
		217.13	Kern County Water Agency Belridge - 5	16,907		16,907								
			Kern County Water Agency Belridge - 5D	144										
		Check No. 25	217.79											
			K.C.W.A. Reach 11B Subtotal:	17,320		17,320	0	0	0	0				
12D	26	219.58	Kern County Water Agency Belridge - 6	0	166	166								
			Kern County Water Agency West Kern - 3	166										
			Check No. 26	224.92										
			230.37	Kern County Water Agency Buena Vista - 6	6,510									
12E	27	Check No. 27	231.73											
		28	235.75	Kern County Water Agency Buena Vista - 2	13,419	6,510	13,419	1,143	147	2/ 9,529				
				Kern County WA CVC	39,566									
				DRWD CVC	0									
				Tulare Co.	0									
				Lower Tule River	0									
				Fresno Co.	0									
				Pixley ID	0									
				Hacienda										
				DWR Wells	0									
		Check No. 28	238.11											
				1/ Arvin Edison Total:	0		0	0	0	0				
				Reach 12E Subtotal:	59,495		48,676	0	1,143	147	9,529			
13B	29		238.19	Kern Water Bank Inflow	0	7,927	189	24						
				Kern Water Bank Outflow	8,140									
				Kern River Intertie (inflow)	0									
				KCWA Buena Vista WSD - 7	13,995									
				KCWA Buena Vista WSD - 5	640									
				Kern County Water Agency Buena Vista - 3	5,706									
			Check No. 29	Buena Vista WSD	0									
		30	244.54	Kern County Water Agency Buena Vista - 4	856	13,777	193	25						
				Buena Vista Pumping Plant	250.99									
				K.C.W.A. Reach 13B Subtotal:	205,795									
					29,337		856	161	21					
14A	31		254.47	Kern County Water Agency West Kern - 2	0	5,524	812	105						
				Kern County Water Agency Wheeler Ridge-Maricopa - 2	139									

1/ Arvin Edison Contractors include Rag Gulch WD, Kern-Tulare WD, Fresno County, Hills Valley ID, Tri Valley WD, Tulare County, Lower Tule River ID, and Pixley ID.

2/ MWD's Table A water; 8,038 AF to Arvin Edison for storage and 1,491 AF to Kern-Delta for storage.

Table 22c. Governor Edmund G. Brown California Aqueduct

San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Other	Purchase Pool A	Purchase Pool B	MWD Ent.		
	No.	Structure	Mile									
14A	31	Check No. 31	256.14			587	587	1,492	192	0		
	32		258.61	Kern County Water Agency Wheeler Ridge-Maricopa - 3	587							
			260.44	Kern County Water Agency Wheeler Ridge-Maricopa - 4	2,292							
		Check No. 32	261.72									
				KCWA Reach 14A Subtotal:	3,018	1,334	0	1,492	192	0		
14B	33		264.42	Kern County Water Agency Wheeler Ridge-Maricopa - 5	4,316	4,316	1,002	3,640	0	0		
			266.91	Kern County Water Agency Wheeler Ridge-Maricopa - 6	1,002							
		Check No. 33	267.36									
	34		270.24	Kern County Water Agency Wheeler Ridge-Maricopa - 7	3,640							
		Check No. 34	271.27									
				Reach 14B Total:	8,958	8,958	0	0	0	0		
14C	35		272.39	Kern County Water Agency Wheeler Ridge-Maricopa - 8	2,374	2,374	1,524	3,898	0	#####		
			276.09	Kern County Water Agency Wheeler Ridge-Maricopa - 9	5,285							
				Reach 14C Total:	7,659							
15A	Teerink Pumping Plant		278.13		191,840	810	5,937	6,747	0	0		
	36		279.02	Kern County Water Agency Wheeler Ridge-Maricopa - 9A	810							
			280.06	Kern County Water Agency Wheeler Ridge-Maricopa - 10	5,937							
				Reach 15-A Total:	6,747							
16A	Chrismar Pumping Plant		280.36		180,120	33	128	178	1,492	0		
	37		282.06	Kern County Water Agency Wheeler Ridge-Maricopa - 11	0							
		Check No. 37	283.95									
	38		285.01	Kern County Water Agency Wheeler Ridge-Maricopa - 12	33							
			286.39	Kern County Water Agency Wheeler Ridge-Maricopa - 13A	128							
			287.06	Kern County Water Agency Wheeler Ridge-Maricopa - 13	0							
	Check No. 38		287.09									
	39		287.62	Kern County Water Agency Wheeler Ridge-Maricopa - 13B	178							
		Check No. 39	290.21									
	40		291.26	Kern County Water Agency Wheeler Ridge-Maricopa - 14	1,492							
			293.07	Kern County Water Agency Wheeler Ridge-Maricopa - 15	461							
				Kern County Water Agency Tehachapi Cummings CWD	1,235							
				K.C.W.A. Reach 16A Subtotal:	3,527	1,089		146	0	0		
17E	Edmonston Pumping Plant		293.45		176,285	3,381	0	146	0	0		

1/ MWD's Table A to Arvin-Edison WSD.

Table 23. Governor Edmund G. Brown California Aqueduct

San Joaquin Field Division, Monthly Deliveries (Coastal Branch)

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Other	MWD Ent.	Purchase Pool A	Purchase Pool B		
	No.	Structure	Mile									
31A	C-1	Coastal Branch Control	0.02		16,574	1,649 10,024	871	112				
		Las Perillas Pumping Plant	1.16		16,574							
	C-2		3.79	Green Valley Water District	0							
		Badger Hill Pumping Plant	4.27		16,574							
	C-3	Coastal Check No. 3	7.21									
	C-4		9.34	Castaic Lake WA (Devil's Den WD #1)	0							
		Coastal Check No. 4	9.34									
	C-5	Coastal Check No. 5	12.20									
	C-6		13.30	Kern County Water Agency Berrenda Mesa - 3	1,649							
			14.83	Kern County Water Agency Berrenda Mesa - 1	11,007							
				Kern County Water Agency Berrenda Mesa - PO	0							
		Devil's Den Pumping Plant	14.86		3,649							
				K.C.W.A. Reach 31A Subtotal:	12,656	11,673	0	0	871	112		
				K.C.W.A. Total:	227,064	185,701	4,714	28,230	7,476	943		
33A	C-7	Bluestone Pumping Plant	19.05		3,472	3,089 476						
	C-8	Polonio Pass Pumping Plant	26.54		3,608							
	C-9	Tank Site 1	27.81	(CCWA) Polonio Pass Treatment Plant								
	C-10	Shandon T.O.	38.23	Santa Barbara County (CCWA)	3,089							
		Tank Site 2	58.63	Central Coast:	0							
34	C-11	Chorro Valley T.O.	69.31	San Luis Obispo County (CCWA)	476	3,565						
		Energy Dissipater	78.12									
		Lopez T.O.	85.86	SLOCFC & WCD	0							
35	C-12			CCWA Total:	3,565	3,565	0	0	0	0		
		Guadalupe T.O.	102.70	SBCFC & WCD	0							
		Santa Maria T.O.	107.43	SBCFC & WCD	0							
38		So. Cal. Water T.O.	109.20	SBCFC & WCD	0							
			SBCFC & WCD Total:	0								
		Tank Site 5	115.42									

Table 24. Southern Field Division Plant Data

(in acre-feet)

July 2003

Date	West Branch					East Branch											
	Oso Pumping Plant	Warne Powerplant		Castaic Powerplant		Alamo Powerplant			Pearblossom Pumping Plant	Mojave Siphon Powerplant			Devil Canyon Powerplant Generation	Cherry Valley	Green Spot	Crafton Hills	
		Generation	Leakage	Generation	Pumpback	Generation	Bypass Through Plant	Cottonwood Chute		Generation	Leakage	Bypass Flume					
28	1	1,606	1,998	0	5,474	869	2,737	0	479	2,838	2,499	0	0	2,915	0	12	7
	2	1,594	1,414	0	6,857	1,628	2,799	0	596	3,158	3,267	0	0	3,027	0	12	7
	3	1,659	2,027	0	5,749	2,814	2,645	0	383	2,625	2,565	0	0	3,146	0	12	7
	4	1,946	1,981	0	4,929	3,167	3,152	0	674	3,478	3,332	0	0	3,085	0	12	7
	5	1,666	2,120	0	3,516	3,630	2,953	0	465	3,203	3,293	0	0	3,212	0	12	7
	6	3,325	1,953	0	180	4,255	3,137	0	690	3,431	3,368	0	0	2,828	0	12	7
	7	1,716	2,054	0	5,783	3,357	2,613	0	601	2,745	2,865	0	0	3,097	0	12	7
	8	1,608	2,136	0	6,601	3,887	2,575	0	564	2,821	2,873	0	0	3,146	0	12	7
	9	1,720	2,298	0	8,006	3,929	2,864	0	556	3,015	2,897	0	0	3,099	0	12	8
	10	1,811	2,144	0	6,874	1,058	2,289	0	759	2,831	2,866	0	0	3,127	0	12	8
	11	1,845	2,250	0	5,413	1,415	2,578	0	714	2,969	2,985	0	0	2,891	0	12	8
	12	1,974	1,851	0	1,731	1,599	2,981	0	506	2,931	2,574	0	0	2,976	0	12	8
	13	3,838	1,866	0	442	1,982	3,149	0	830	3,688	3,633	0	0	2,981	0	13	8
	14	2,505	2,949	0	4,837	1,814	2,878	0	554	2,822	3,100	0	0	3,058	0	13	8
	15	2,490	2,954	0	3,852	1,706	2,399	0	771	2,779	2,766	0	0	3,019	0	13	8
	16	2,665	2,909	0	4,824	0	2,785	0	387	2,728	2,826	0	0	2,869	0	13	8
	17	2,620	2,945	0	3,351	1,795	2,704	0	727	3,023	2,920	0	0	3,186	0	13	8
	18	2,620	2,963	0	6,634	2,565	2,790	0	579	3,000	2,880	0	0	3,111	0	13	8
	19	2,615	2,923	0	2,414	2,407	3,258	0	330	3,246	3,088	0	0	3,029	0	13	8
	20	3,838	2,575	0	0	1,840	3,595	0	248	3,593	3,478	0	0	3,074	0	13	8
	21	3,027	2,752	0	4,382	718	3,149	0	294	2,803	2,991	0	0	3,024	0	13	8
	22	3,022	2,723	0	3,849	862	3,155	0	246	2,988	2,976	0	0	3,017	0	13	8
	23	3,031	2,542	0	5,319	1,812	2,996	0	388	2,985	2,953	0	0	3,115	0	13	8
	24	2,545	1,267	0	4,703	1,276	3,362	0	447	3,267	3,197	0	0	2,886	0	13	8
	25	1,615	1,622	0	5,643	1,897	3,369	0	637	3,753	3,201	0	0	3,022	0	13	8
	26	1,566	1,622	0	2,803	4,145	3,044	0	620	3,434	3,608	0	0	2,993	0	13	8
	27	1,236	1,624	0	2,608	2,270	3,460	0	480	3,386	3,455	0	0	2,999	0	13	8
	28	1,451	1,624	0	3,911	2,596	3,034	0	416	3,108	3,057	0	0	3,005	0	13	8
	29	1,451	1,625	0	5,812	2,415	3,012	0	505	2,981	2,792	0	0	3,111	0	13	8
	30	1,664	1,893	0	4,307	0	3,052	0	469	3,134	3,072	0	0	3,056	0	13	8
	31	1,544	1,981	0	1,602	0	3,055	0	429	3,158	2,965	0	0	3,063	0	13	8
Total		67,813	67,585	0	132,406	63,708	91,569	0	16,344	95,921	94,342	0	0	94,167	0	391	240

Table 25. Pyramid Lake
Daily Operation

Capacity: 171,200 ac-ft

(in acre-feet except as noted)

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow				Computed Losses (-) And Gains (+)	
				Project		Natural	Project		Natural	United Water Agency		
				Castaic Powerplant Pumpback	Warne Powerplant	Stream Flow	Castaic Powerplant Generation	Recreation Deliveries	To Piru Creek			
Jun 30	2574.25	165,105										
1	2572.04	162,321	-2,784	869	1,998	7	5,474	0	0	102	-184	
2	2568.84	158,344	-3,977	1,628	1,414	7	6,857	0	0	102	-169	
3	2568.00	157,310	-1,034	2,814	2,027	6	5,749	0	0	102	-132	
4	2568.07	157,396	86	3,167	1,981	6	4,929	0	0	102	-139	
5	2569.69	159,394	1,998	3,630	2,120	6	3,516	0	0	102	-242	
6	2574.45	165,358	5,964	4,255	1,953	6	180	0	0	102	-70	
7	2573.99	164,776	-582	3,357	2,054	6	5,783	0	0	102	-216	
8	2573.41	164,043	-733	3,887	2,136	5	6,601	1	0	102	-159	
9	2571.86	162,095	-1,948	3,929	2,298	6	8,006	0	0	102	-175	
10	2568.73	158,208	-3,887	1,058	2,144	6	6,874	0	0	102	-221	
11	2566.98	156,061	-2,147	1,415	2,250	6	5,413	0	0	102	-405	
12	2568.26	157,630	1,569	1,599	1,851	6	1,731	0	0	102	-156	
13	2570.91	160,909	3,279	1,982	1,866	6	442	0	0	102	-133	
14	2570.75	160,710	-199	1,814	2,949	6	4,837	0	0	102	-131	
15	2571.23	161,308	598	1,706	2,954	7	3,852	0	0	102	-217	
16	2569.57	159,245	-2,063	0	2,909	5	4,824	0	0	102	-153	
17	2570.55	160,461	1,216	1,795	2,945	4	3,351	0	0	102	-177	
18	2569.43	159,072	-1,389	2,565	2,963	4	6,634	0	0	102	-287	
19	2571.65	161,833	2,761	2,407	2,923	6	2,414	0	0	102	-161	
20	2575.00	166,057	4,224	1,840	2,575	7	0	0	0	102	-198	
21	2574.14	164,966	-1,091	718	2,752	7	4,382	1	0	102	-185	
22	2573.69	164,396	-570	862	2,723	7	3,849	0	0	102	-313	
23	2572.79	163,262	-1,134	1,812	2,542	6	5,319	0	0	102	-175	
24	2570.99	161,009	-2,253	1,276	1,267	6	4,703	0	0	102	-99	
25	2569.14	158,714	-2,295	1,897	1,622	6	5,643	0	0	101	-177	
26	2571.34	161,445	2,731	4,145	1,622	6	2,803	0	0	101	-239	
27	2572.44	162,822	1,377	2,270	1,624	6	2,608	0	0	101	85	
28	2572.58	162,998	176	2,596	1,624	6	3,911	0	0	101	-139	
29	2570.96	160,971	-2,027	2,415	1,625	6	5,812	0	0	101	-261	
30	2568.86	158,368	-2,603	0	1,893	6	4,307	0	0	101	-195	
31	2568.75	158,233	-135	0	1,981	7	1,602	0	0	101	-521	
Total			-6,872	63,708	67,585	187	132,406	2	0	3,155	-5,944	

Table 26. Elderberry Forebay

Daily Operation

(in acre-feet except as noted)

Capacity: 32,476 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow			Computed Losses (-) And Gains (+)	
				Castaic Powerplant Generation	Natural	Castaic Powerplant Pumpback	To Castaic Lake			
							Natural	Project		
Jun 30	1519.30	22,943								
1	1521.95	24,078	1,135	5,474	0	869	0	3,471	1	
2	1525.87	25,803	1,725	6,857	0	1,628	0	3,505	1	
3	1524.95	25,393	-410	5,749	0	2,814	0	3,343	-2	
4	1528.87	27,161	1,768	4,929	0	3,167	0	0	6	
5	1521.19	23,750	-3,411	3,516	0	3,630	0	3,295	-2	
6	1511.16	19,633	-4,117	180	0	4,255	0	0	-42	
7	1517.08	22,013	2,380	5,783	0	3,357	0	0	-46	
8	1517.66	22,254	241	6,601	0	3,887	0	2,474	1	
9	1518.21	22,484	230	8,006	0	3,929	0	3,847	0	
10	1523.32	24,675	2,191	6,874	0	1,058	0	3,624	-1	
11	1526.25	25,973	1,298	5,413	0	1,415	0	2,701	1	
12	1526.53	26,098	125	1,731	0	1,599	0	0	-7	
13	1523.11	24,583	-1,515	442	0	1,982	0	0	25	
14	1521.24	23,772	-811	4,837	0	1,814	0	3,834	0	
15	1517.07	22,009	-1,763	3,852	0	1,706	0	3,909	0	
16	1519.56	23,053	1,044	4,824	0	0	0	3,765	-15	
17	1514.26	20,861	-2,192	3,351	0	1,795	0	3,749	1	
18	1517.00	21,980	1,119	6,634	0	2,565	0	2,949	-1	
19	1514.91	21,124	-856	2,414	0	2,407	0	864	1	
20	1510.41	19,342	-1,782	0	0	1,840	0	0	58	
21	1519.32	22,952	3,610	4,382	0	718	0	0	-54	
22	1517.41	22,150	-802	3,849	0	862	0	3,788	-1	
23	1517.09	22,017	-133	5,319	0	1,812	0	3,640	0	
24	1516.57	21,802	-215	4,703	0	1,276	0	3,642	0	
25	1516.82	21,906	104	5,643	0	1,897	0	3,643	1	
26	1510.52	19,385	-2,521	2,803	0	4,145	0	1,179	0	
27	1510.66	19,439	54	2,608	0	2,270	0	0	-284	
28	1513.96	20,740	1,301	3,911	0	2,596	0	0	-14	
29	1522.13	24,156	3,416	5,812	0	2,415	0	0	19	
30	1523.06	24,561	405	4,307	0	0	0	3,901	-1	
31	1528.23	26,868	2,307	1,602	0	0	0	0	705	
Total				3,925	132,406	0	63,708	0	65,123	
									350	

Table 27. Castaic Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 323,699 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow		Computed Losses (-) And Gains (+)	
				From Elderberry Forebay		Natural	Deliveries		
				Natural	Project				
Jun 30	1510.86	314,523							
1	1511.64	316,234	1,711	0	3,471	0	2,605	0 845	
2	1511.60	316,146	-88	0	3,505	1	2,443	0 -1,151	
3	1512.07	317,189	1,043	0	3,343	0	2,248	10 -42	
4	1511.05	314,941	-2,248	0	0	1	2,233	10 -6	
5	1511.44	315,799	858	0	3,295	0	2,316	10 -111	
6	1510.51	313,754	-2,045	0	0	1	2,117	10 81	
7	1509.55	311,652	-2,102	0	0	0	2,039	0 -63	
8	1509.55	311,652	0	0	2,474	1	2,292	0 -183	
9	1509.97	312,571	919	0	3,847	0	2,958	0 30	
10	1510.81	314,413	1,842	0	3,624	0	1,680	0 -102	
11	1511.06	314,963	550	0	2,701	0	2,230	0 79	
12	1509.76	312,111	-2,852	0	0	0	2,822	0 -30	
13	1508.59	309,557	-2,554	0	0	0	2,596	0 42	
14	1509.16	310,800	1,243	0	3,834	0	2,545	0 -46	
15	1509.77	312,133	1,333	0	3,909	0	2,492	0 -84	
16	1510.31	313,316	1,183	0	3,765	0	2,497	0 -85	
17	1510.92	314,655	1,339	0	3,749	0	2,379	0 -31	
18	1511.14	315,139	484	0	2,949	0	2,379	0 -86	
19	1510.48	313,689	-1,450	0	864	0	2,359	0 45	
20	1509.46	311,455	-2,234	0	0	0	2,291	0 57	
21	1508.37	309,079	-2,376	0	0	0	2,266	0 -110	
22	1509.00	310,451	1,372	0	3,788	0	2,549	0 133	
23	1509.48	311,499	1,048	0	3,640	0	2,511	0 -81	
24	1509.90	312,417	918	0	3,642	0	2,558	30 -136	
25	1510.36	313,425	1,008	0	3,643	0	2,551	99 15	
26	1509.82	312,242	-1,183	0	1,179	0	2,483	36 157	
27	1508.73	309,862	-2,380	0	0	0	2,461	0 81	
28	1507.58	307,363	-2,499	0	0	0	2,530	0 31	
29	1506.48	304,983	-2,380	0	0	0	2,492	0 112	
30	1506.96	306,020	1,037	0	3,901	0	2,473	0 -391	
31	1505.81	303,539	-2,481	0	0	0	2,364	0 -117	
Total		-10,984	0	65,123	4	74,759	205	-1,147	

Table 28. Governor Edmund G. Brown California Aqueduct

Southern Field Division, Monthly Deliveries (West Branch)

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Rec.	Local	Transfer	Flexible Payback		
	No.	Structure	Mile									
29A	42	Oso Pumping Plant	1.49		67,813							
29F	W2	Quail Lake	5.02	Antelope Valley-East Kern Water Agency	Re-moved	418	2	2,737				
		Quail Lake Embankment	7.82	Antelope Valley-East Kern Water Agency	Stub							
		Warne Power Plant	14.07		67,585							
29H	W3	Pyramid Lake		Calif. State Park Pyramid Recreation	0	12,075	50					
			14.10	United Water Conservation District	3,155							
		Pyramid Dam	17.10	Piru Creek Fish Enhancement	2							
29J	W4	Castaic Power Plant	25.82	(63,708 AF pumpback)	132,406	56,902						
		Elderberry Forebay										
		Forebay Dam	28.12									
30 1/	W5	Castaic Lake		Calif. State Park Castaic Lake Recreation	50	2,614	0					
		Castaic Dam	31.47									
		Castaic Lake Outlet	31.55	MWD - 78"	12,075							
				MWD - 132"	56,902							
				Castaic Lake WA - T1	2,614							
				Castaic Lake WA	2,964							
				United Water Conservation Dist.	0							
				MWD - Ventura County FCD	154							
				LA Co. Parks & Recreation	0							
				Releases to Lagoon	205							
				Reach 30 Subtotal:	74,759	154	74,709	50	0	0		
		W6	Castaic Lagoon	Recreation to Lagoon	168		168					
			Castaic Lagoon Outlet	31.87								

1/ Reach 30 actually terminates at mile 31.50. It is shown here as including the outlet works at mile 31.55.

All deliveries from the outlet works and from the Lagoon are billed to Reach 30.

Table 29. Silverwood Lake

Daily Operation
(in acre-feet except as noted)

Capacity: 74,970 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow				Computed Losses (-) And Gains (+)	Las Flores Ranch Exchange 1/	
							Project			Del. To Mojave W.A.	Natural To Mojave River		
				Mojave Siphon Power-plant	Mojave Bypass Flume	Natural Stream Flow	Delivered to CLAWA	Rec.	San Bernardino Tunnel				
Jun 30	3351.90	71,977											
1	3351.36	71,463	-514	2,499	0	1	8	0	2,915	0	1	-90	
2	3351.67	71,758	295	3,267	0	1	9	0	3,027	0	0	63	
3	3350.93	71,055	-703	2,565	0	1	9	0	3,146	0	1	-113	
4	3351.32	71,425	370	3,332	0	1	8	0	3,085	0	0	130	
5	3351.28	71,387	-38	3,293	0	1	8	1	3,212	0	1	-110	
6	3351.82	71,901	514	3,368	0	0	9	0	2,828	0	0	-17	
7	3351.74	71,825	-76	2,865	0	0	8	0	3,097	0	0	164	
8	3351.32	71,425	-400	2,873	0	0	9	0	3,146	0	1	-117	
9	3351.20	71,311	-114	2,897	0	0	9	0	3,099	0	0	97	
10	3350.93	71,055	-256	2,866	0	0	9	0	3,127	0	0	14	
11	3350.97	71,093	38	2,985	0	0	9	0	2,891	0	1	-46	
12	3350.73	70,865	-228	2,574	0	0	8	0	2,976	0	0	182	
13	3351.28	71,387	522	3,633	0	0	9	0	2,981	0	0	-121	
14	3351.20	71,311	-76	3,100	0	0	9	0	3,058	0	1	-108	
15	3351.04	71,159	-152	2,766	0	0	9	0	3,019	0	0	110	
16	3350.89	71,017	-142	2,826	0	0	10	0	2,869	0	0	-89	
17	3350.73	70,865	-152	2,920	0	0	10	0	3,186	0	1	125	
18	3350.39	70,544	-321	2,880	0	0	9	1	3,111	0	0	-80	
19	3350.46	70,610	66	3,088	0	0	9	0	3,029	0	1	17	
20	3350.85	70,979	369	3,478	0	0	9	0	3,074	0	0	-26	
21	3350.81	70,941	-38	2,991	0	0	10	0	3,024	0	0	5	
22	3350.66	70,799	-142	2,976	0	0	9	0	3,017	0	0	-92	
23	3350.46	70,610	-189	2,953	0	0	10	0	3,115	0	0	-17	
24	3350.85	70,979	369	3,197	0	0	10	0	2,886	0	1	69	
25	3351.04	71,159	180	3,201	0	0	11	0	3,022	0	0	12	
26	3351.90	71,977	818	3,608	0	0	10	0	2,993	0	1	214	
27	3352.40	72,456	479	3,455	0	0	9	0	2,999	0	0	32	
28	3352.44	72,494	38	3,057	0	0	9	0	3,005	0	0	-5	
29	3352.21	72,274	-220	2,792	0	0	8	0	3,111	0	0	107	
30	3352.29	72,350	76	3,072	0	0	8	0	3,056	0	1	69	
31	3352.36	72,417	67	2,965	0	0	8	0	3,063	0	0	173	
Total				440	94,342	0	5	279	2	94,167	0	11	552
												317	

1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.

Table 30. Lake Perris

Daily Operation

(in acre-feet except as noted)

Capacity: 131,452 ac-ft

July 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow 1/	Outflow 2/	Computed Losses (-) Gains (+) 1/
Jun 30	1586.56	123,556				
1	1586.62	123,692	136		11	
2	1586.58	123,601	-91		10	
3	1586.53	123,488	-113		13	
4	1586.58	123,601	113		10	
5	1586.56	123,556	-45		11	
6	1586.47	123,351	-205		11	
7	1586.41	123,215	-136		13	
8	1586.43	123,261	46		10	
9	1586.51	123,442	181		10	
10	1586.44	123,283	-159		12	
11	1586.37	123,125	-158		10	
12	1586.43	123,261	136		11	
13	1586.39	123,170	-91		11	
14	1586.34	123,057	-113		11	
15	1586.35	123,079	22		11	
16	1586.28	122,921	-158		10	
17	1586.24	122,830	-91		12	
18	1586.29	122,944	114		12	
19	1586.21	122,762	-182		12	
20	1586.20	122,740	-22		10	
21	1586.23	122,808	68		13	
22	1586.23	122,808	0		13	
23	1586.18	122,694	-114		11	
24	1586.16	122,649	-45		12	
25	1586.15	122,627	-22		11	
26	1586.09	122,491	-136		12	
27	1586.03	122,355	-136		12	
28	1586.01	122,310	-45		12	
29	1586.10	122,513	203		12	
30	1586.00	122,287	-226		12	
31	1586.42	123,218	931		12	
Total			-338	885	353	-870

1/ Readings are not taken on a daily basis. End of month only.

2/ Includes deliveries of 304 AF to MWD from Reach 28J and 49 AF recreation water to California State Park.

Table 31a. Governor Edmund G. Brown California Aqueduct
 Southern Field Division, Monthly Deliveries (East Branch)

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Rec.	Transfer	Purchase Pool A	Transfer Local Out		
	No.	Structure	Mile									
17E	40	Edmonston Pumping Plant	293.45		176,285							
	41		298.65	Kern County Water Agency Tej.-Cas	Stub							
17F		Check No. 41	303.41									
18A	42	Check No. 42	304.99									
19	43	Alamo Powerplant	305.73	(Does not include 16,344 AF flow down Cottonwood Chute)	91,569							
			308.05	Antelope Valley-East Kern WA	0							
		Check No. 43	309.70									
	44		311.84	LADWP Connection	0							
			313.50	AVEK 245th Street West	0							
	Check No. 44		314.81									
	45		314.93	AVEK 235th Street West	0							
			315.57	AVEK 225th Street West	0							
	Check No. 45		319.74									
	46		323.19	Antelope Valley-East Kern WA								
				Fairmont	2,409							
				Mojave Water Agency Fairmont	162							
		Check No. 46	323.84									
				Reach 19 Total:	2,571							
20A	47	Check No. 47	326.77									
	48		326.91	Antelope Valley-East Kern WA								
			329.65	Willow Springs Siphon	141							
		Check No. 48	330.82	Antelope Valley-East Kern WA	Removed							
	49	Check No. 49	335.93									
	50		336.73	AVEK WA - Quartz Hill (Wheeled for Palmdale WD)	0							
			339.68	Antelope Valley-East Kern WA	5,021							
		Check No. 50	341.51	Antelope Valley-East Kern WA	119							
20B	51	Check No. 51	342.07									
	52		342.80	Antelope Valley-East Kern WA	Not in Use							
			343.50	30th Street West	189							
	Check No. 52		343.74	Temporary 10 & 12								
	53		346.98	PWD Palmdale	1,810							
			348.14	Antelope Valley-East Kern WA	184							
21	Check No. 53		348.17	Acton Treatment Plant								
	54	Check No. 54	350.25									
	55	Check No. 55	352.70									
	56	Check No. 56	354.76									
22A			354.97	Littlerock Creek I.D.	0							
	57	Check No. 57	356.93									
	58		357.60	Antelope Valley-East Kern WA	72							
			357.72	96th Street East	55							
			359.82	Antelope Valley-East Kern WA	756							
				East Side Treatment Plant								

Table 31b. Governor Edmund G. Brown California Aqueduct

Southern Field Division, Monthly Deliveries (East Branch, Continued)

(In acre-feet)

July 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries										
	Beginning and Ending					Table A Amount	Recreation	Ex-change	Transfer	Flexible Payback						
	No.	Structure	Mile													
22B	58	Pearblossom Pumping Plant	360.61		95,921	577	226	221	317							
	59	Check No. 59	366.09													
	60		366.50		Antelope Valley-East Kern WA		0									
		Check No. 60	373.94													
	61	Check No. 61	379.00													
	62	Check No. 62	384.26													
	63	Check No. 63	389.20		Mojave Water Agency Mojave River		577									
			394.60		Mojave Water Agency Temporary		226									
	64	Check No. 64	395.10													
	65	Check No. 65	400.32													
23	66	Check No. 66	401.10		Mojave Water Agency Morongo 24" and 42"		221									
					Mojave Water Agency Hesperia		0									
24	67	Mojave Siphon	405.48		Las Flores Ranch	317	279	2	317							
		Mojave Siphon Powerplant	405.65			94,342										
25		Silverwood Lake	407.65		Crestline Lake Arrowhead Water Agency	279										
					Calif. State Park Silverwood Agency (Rec.)											
26A	68	San Bernardino Tunnel	411.46			94,167										
						94,167										
28G			Devil Canyon Powerplant	412.73			2	2	317							
					San Gorgonio Pass Water Agency	2										
					MWD-SC Rialto	4,803										
					Desert Water Agency (MWD Wheeling Exchange)	3,810										
					San Gabriel Valley Water District	2,686										
					Coachella Valley WD (MWD Wheeling Exchange)	2,310										
					San Bernardino Valley MWD 24" and 72"	6,231										
					San Bernardino Valley MWD 48"	1,986										
					MWD (SBVMWD Exchange)	44,599										
28H	69	Santa Ana Valley Pipeline	425.46				10,841	22,931	317							
			433.06		MWD-SC Box Springs	10,841										
28J			440.05		MWD-SC Perris Bypass Pipeline	22,931										
			442.00		MWD-SC 18"	304										
28J		Lake Perris	443.44		MWD-SC 54"	0	49	0	0							
					MWD-SC 78"	0										
					Calif. State Park Lake Perris Recreation	49										
					MWD Total:	161,343										

Table 32. Water Quality At Selected SWP Locations

July 2003

Constituent	Units	Thermalito Afterbay At Outlet	North Bay Aqueduct Barker Slough Pumping Plant	Banks Pumping Plant	Delta Mendota Canal At McCabe Rd.	California Aqueduct				Devil Canyon Afterbay Near San Bernardino
						O'Neill Forebay Outlet (Check 13)	Kettleman City (Check 21)	Near Hwy 119 (Check 29)	Tehachapi Afterbay (Check 41)	
Alkalinity	mg/l as CaCO ₃	43	81	58	74	69	72	76	70	77
Antimony	mg/l	NR	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NR	NR
Arsenic	mg/l	<0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Beryllium	mg/l	NR	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boron	mg/l	<0.1	0.1	<0.1	0.2	0.1	0.1	0.1	0.1	0.2
Bromide	mg/l	NR	0.03	0.05	0.13	0.10	0.12	0.14	0.10	0.14
Calcium	mg/l	8	13	11	20	15	16	19	15	18
Carbon - Dissolved Organic	mg/l as C	NR	3	2	3	3	3	3	3	3
Carbon - Total Organic	mg/l as C	NR	4	2	3	3	3	3	3	4
Chloride	mg/l	<1	12	17	44	34	40	49	35	47
Chromium	mg/l	<0.001	<0.001	<0.001	0.002	0.002	0.002	0.001	0.002	0.003
Copper	mg/l	0.001	0.002	0.002	0.007	0.002	0.002	0.002	0.002	0.003
Fluoride	mg/l	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness	mg/l as CaCO ₃	32	74	56	82	75	81	93	75	90
Iron	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium	mg/l	3	10	7	10	9	10	11	9	11
Manganese	mg/l	<0.005	0.010	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrate + Nitrite	mg/l as N	<0.01	0.81	0.20	NR	NR	0.49	NR	0.51	0.57
Phosphorus-Ortho	mg/l as P	<0.01	0.11	0.07	NR	NR	0.08	NR	0.08	0.09
Phosphorus-Total	mg/l	<0.01	0.20	0.10	NR	NR	0.10	NR	0.12	0.12
Selenium	mg/l	NR	<0.001	<0.001	NR	NR	NR	<0.001	NR	NR
Sodium	mg/l	3	15	15	34	27	31	39	28	37
Specific Conductance	µS/cm	79	222	190	374	288	320	375	302	386
Sulfate	mg/l	2	13	10	41	21	25	30	22	32
Total Dissolved Solids	mg/l	51	134	115	225	174	192	231	182.5	233
Turbidity	NTU	2	68	11	16	7	8	13.5	17	7
Zinc	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

mg/l milligrams per liter

µg/l micrograms per liter

µS/cm microSiemens per centimeter

NR - Not Reported

NTU - nephelometric turbidity units

Table 33. Water Quality At Selected Delta Stations

July 2003

Date	Tides (feet above mean sea level)		Flow In CFS		Electrical Conductivity in milliSiemens/cm									Cl in mg/l		
			Net Delta Outflow Index		Rio Vista	Antioch	Chippis island	Emmaton		Jersey Point		Clifton Court	Cache Slough	Delta Mendota Canal	Contra Costa Canal Intake	
	(Antioch) Daily Mean		Mean Daily	Monthly Average												
	Hi	Half			md	md	md	md	14dm	md	14dm	md	md	md	md	
38	1	3.55	1.38	7,319	7,319	10,742	0.71	3.84	0.25	0.18	0.21	0.17	0.18	0.40	0.23	12
	2	3.40	1.37	7,803	7,561	10,604	0.75	3.53	0.24	0.19	0.23	0.17	0.19	0.42	0.24	11
	3	3.26	1.34	7,255	7,459	10,554	0.76	3.49	0.24	0.19	0.24	0.18	0.19	0.43	0.23	12
	4	3.00	1.26	6,910	7,322	10,708	0.76	3.31	0.22	0.20	0.25	0.19	0.19	0.46	0.23	12
	5	2.65	1.22	6,996	7,256	10,510	0.50	3.42	0.22	0.20	0.25	0.20	0.19	0.42	0.23	13
	6	2.69	1.13	6,758	7,173	10,549	0.59	3.11	0.21	0.21	0.25	0.20	0.20	0.45	0.23	14
	7	2.93	1.03	6,948	7,141	10,650	0.58	2.96	0.19	0.21	0.24	0.21	0.20	0.54	0.24	14
	8	3.05	0.90	6,593	7,073	11,239	0.67	2.56	0.19	0.21	0.25	0.22	0.21	0.59	0.24	15
	9	3.05	0.94	7,317	7,100	11,543	0.63	2.72	0.20	0.22	0.27	0.22	0.19	0.54	0.23	15
	10	3.29	1.12	7,530	7,143	11,790	0.81	3.55	0.22	0.22	0.31	0.23	0.19	0.48	0.23	16
	11	3.58	1.25	7,702	7,194	12,079	1.04	3.83	0.25	0.23	0.34	0.25	0.19	0.46	0.22	16
	12	3.82	1.42	8,018	7,262	12,366	1.12	4.38	0.31	0.23	0.37	0.26	0.19	0.38	0.22	17
	13	3.88	1.41	8,327	7,344	12,885	1.19	4.33	0.32	0.24	0.39	0.27	0.19	0.38	0.23	18
	14	3.71	1.34	8,751	7,445	13,235	1.09	3.96	0.29	0.24	0.38	0.28	0.20	0.42	0.24	16
	15	3.72	1.47	9,131	7,557	13,323	1.17	4.44	0.31	0.24	0.41	0.30	0.19	0.48	0.23	18
	16	3.52	1.37	9,226	7,661	13,560	1.13	3.88	0.28	0.25	0.41	0.31	0.19	0.50	0.23	20
	17	3.12	1.22	10,100	7,805	13,306	1.01	3.32	0.23	0.25	0.38	0.32	0.19	0.53	0.24	21
	18	2.65	1.10	9,811	7,916	12,941	1.00	2.98	0.21	0.25	0.38	0.33	0.19	0.47	0.23	24
	19	2.62	1.19	9,267	7,987	12,741	0.92	2.94	0.20	0.24	0.39	0.34	0.20	0.44	0.23	26
	20	2.80	1.11	9,079	8,042	12,992	0.94	2.65	0.19	0.24	0.38	0.35	0.21	0.44	0.24	29
	21	3.00	1.23	9,541	8,113	13,132	0.89	3.08	0.17	0.24	0.40	0.36	0.20	0.46	0.23	31
	22	3.27	1.38	9,696	8,185	13,075	0.89	3.31	0.17	0.24	0.42	0.37	0.17	0.46	0.23	31
	23	3.48	1.62	9,331	8,235	13,504	0.94	3.71	0.16	0.24	0.44	0.39	0.17	0.38	0.22	33
	24	3.48	1.60	9,771	8,299	13,553	1.01	4.05	0.18	0.23	0.46	0.40	0.18	0.39	0.24	34
	25	3.67	1.81	9,897	8,363	13,526	1.02	4.57	0.21	0.23	0.48	0.41	0.20	0.38	0.23	36
	26	3.89	1.72	10,427	8,442	14,078	1.04	4.09	0.24	0.23	0.46	0.41	0.20	0.39	0.26	38
	27	3.74	1.69	11,421	8,553	14,230	0.96	3.78	0.21	0.22	0.44	0.42	0.22	0.38	0.27	39
	28	3.87	1.74	12,764	8,703	14,481	0.96	3.99	0.24	0.21	0.44	0.42	0.22	0.37	0.26	41
	29	3.95	1.83	13,222	8,859	14,782	0.87	3.80	0.23	0.21	0.42	0.42	0.22	0.40	0.26	41
	30	3.97	1.85	13,741	9,022	14,951	0.88	3.49	0.22	0.20	0.40	0.42	0.23	0.41	0.27	44
	31	3.63	1.49	13,986	9,182	15,042	0.77	2.74	0.19	0.20	0.37	0.42	0.23	0.46	0.28	46

Clifton Court Cl(mg/l)=200X EC - 25

e = Estimated

N.R. = No Record.

N.C. = Not computed due to insufficient data.

f = Excess Delta conditions with fish concerns.

r = Excess delta conditions with export/inflow ratio concerns.

s = Balanced water conditions with storage withdrawals.

dm = Daily Mean

md = Mean Daily

Table 34. Pesticides, Herbicides, and Other Organic Substances Detected In the SWP

July 2003

Sampling Location	Sample Date 1/	Chemical Detected	Concentration µg/l 2/
North Bay Aqueduct At Barker Slough Pumping Plant	June 17, 2003	None Detected	
California Aqueduct At Banks Pumping Plant	June 17, 2003	None Detected	
O'Niell Forebay Outlet Check 13	June 17, 2003	None Detected	
Delta Mendota Canal At McCabe Road	June 17, 2003	Methyl tert-butyl ether (MTBE)	1
California Aqueduct Near Kettleman City (Check 21)	June 17, 2003	None Detected	
California Aqueduct At Tehachapi Afterbay (Check 41)	June 17, 2003	None Detected	

1/ Locations are normally sampled during March, June, and September. Monthly reports will include data for the month in which samples were most recently taken.

2/ Micrograms per liter.

Table 35. Oroville and Delta Field Divisions Energy Data

July 2003

(in kWh)

Date	Oroville Thermalito Complex		Barker Slough Pumping Plant	Cordelia Pumping Plant Load	Banks Pumping Plant		South Bay Pumping Plant Load	Del Valle Pumping Plant Load
	Generation	Load			Total Load	SWP Load		
1	15,630,624	0	43,792	34,832	3,720,960	3,720,960	411,365	253
2	16,054,272	0	44,373	36,176	3,658,560	3,658,560	400,510	256
3	15,666,048	0	44,149	34,727	3,663,168	3,663,168	410,225	262
4	17,217,792	0	39,858	30,821	3,663,360	3,663,360	390,335	263
5	15,813,504	0	38,472	27,580	3,659,904	3,659,904	375,005	262
6	15,862,752	0	40,012	30,226	3,657,408	3,657,408	371,570	238
7	16,374,528	0	43,519	34,720	3,659,520	3,659,520	384,825	232
8	17,601,120	0	44,191	33,075	3,918,528	3,918,528	407,300	242
9	18,114,624	0	46,991	34,839	3,916,032	3,916,032	407,280	275
10	18,243,936	0	48,307	34,433	3,930,816	3,930,816	433,195	288
11	17,958,240	0	46,718	34,531	3,915,648	3,915,648	439,845	292
12	15,248,448	0	45,255	34,167	3,922,560	3,922,560	408,075	295
13	16,172,640	0	44,674	32,557	3,924,672	3,924,672	404,255	292
14	17,944,128	0	43,981	33,488	3,925,824	3,925,824	410,525	302
15	17,025,120	0	42,994	32,872	3,926,592	3,926,592	434,835	353
16	16,139,808	0	48,678	34,629	3,923,520	3,923,520	419,940	339
17	15,059,520	0	47,033	35,763	3,640,704	3,640,704	420,370	309
18	16,036,704	0	43,617	32,732	3,651,456	3,651,456	437,795	295
19	11,748,672	0	44,366	32,970	3,648,384	3,648,384	431,805	286
20	13,657,248	0	45,745	32,389	3,648,000	3,648,000	418,900	279
21	16,868,736	0	46,039	32,928	3,634,176	3,634,176	443,345	285
22	16,838,784	0	49,308	34,356	3,644,736	3,644,736	446,100	282
23	16,264,800	0	48,923	36,078	3,650,112	3,650,112	450,080	284
24	16,197,984	0	47,719	36,659	3,632,640	3,632,640	439,650	280
25	13,925,952	0	45,948	34,286	3,647,808	3,647,808	429,740	268
26	11,988,864	0	44,618	34,097	3,636,864	3,636,864	424,075	259
27	10,928,736	0	45,108	32,732	3,632,256	3,632,256	436,915	271
28	13,942,944	0	42,651	33,222	3,248,064	3,248,064	439,825	271
29	14,716,512	0	40,985	31,668	3,278,976	3,278,976	439,895	272
30	14,250,528	0	41,104	31,962	3,310,080	3,310,080	442,015	264
31	13,855,680	0	38,997	29,435	3,293,184	3,293,184	425,935	261
Total	483,349,248	0	1,378,125	1,034,950	114,184,512	114,184,512	13,035,530	8,610

Table 36. San Luis Field Division Energy Data

(in kWh)

July 2003

Date	Dos Amigos Pumping Plant		Gianelli Pumping-Generating Plant			
	Total Load	SWP Load 1/	Total Generation	SWP Generation 1/	Total Load	SWP Load 1/
1	2,751,552	1,692,552	1,856,736	-63,264	211,680	211,680
2	2,549,808	1,490,808	938,304	8,304	768,960	768,960
3	2,578,752	1,519,752	1,796,544	461,544	952,704	952,704
4	2,730,960	1,674,960	1,407,168	72,168	7,200	7,200
5	2,652,624	1,593,624	2,005,920	149,920	5,184	5,184
6	2,855,664	1,799,664	1,490,976	98,976	0	0
7	2,541,168	1,482,168	1,378,368	43,368	7,488	7,488
8	2,507,616	1,448,616	905,760	35,760	7,200	7,200
9	2,779,344	1,720,344	2,460,384	690,384	1,022,976	1,022,976
10	3,075,408	2,016,408	1,908,576	417,576	582,336	582,336
11	3,061,296	2,002,296	2,723,040	998,040	7,776	7,776
12	2,898,144	1,839,144	1,776,672	387,672	7,200	7,200
13	3,436,704	2,380,704	1,876,896	571,896	5,760	5,760
14	2,795,904	1,736,904	1,764,288	459,288	7,776	7,776
15	2,994,048	1,935,048	1,952,640	287,640	7,776	7,776
16	3,148,560	2,089,560	1,916,928	656,928	655,776	655,776
17	3,290,544	2,231,544	2,636,640	1,151,640	7,200	7,200
18	3,107,952	2,048,952	2,824,128	1,339,128	7,488	7,488
19	3,108,384	2,049,384	2,776,896	1,126,896	7,200	7,200
20	3,094,848	2,038,848	1,649,952	1,019,952	8,640	8,640
21	3,087,648	2,028,648	2,812,032	1,312,032	7,488	7,488
22	3,018,096	1,959,096	2,220,192	660,192	7,200	7,200
23	2,941,920	1,882,920	1,778,688	608,688	769,824	769,824
24	2,904,768	1,845,768	2,093,472	923,472	336,096	336,096
25	2,987,280	1,928,280	2,104,704	799,704	6,624	6,624
26	2,785,248	1,726,248	1,898,208	274,208	6,336	6,336
27	2,826,864	1,770,864	889,920	19,920	6,912	6,912
28	2,525,760	1,466,760	2,067,552	327,552	7,200	7,200
29	2,525,040	1,466,040	2,168,928	631,928	7,200	7,200
30	2,581,632	1,522,632	2,041,632	301,632	7,200	7,200
31	2,623,392	1,564,392	1,970,496	230,496	7,200	7,200
Total	88,766,928	55,952,928	60,092,640	16,003,640	5,457,600	5,457,600

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

Table 37. San Joaquin Field Division Pumping Plant Energy Load Data

(in kWh)

July 2003

Date	Coastal Branch					California Aqueduct			
	Las Perillas	Badger Hill	Devils Den	Bluestone	Polonio	Buena Vista	Teerink	Chrisman	Edmonston
1	36,252	93,464	69,894	66,492	70,398	1,410,264	1,416,816	3,054,816	10,861,920
2	37,112	98,680	77,724	75,150	77,454	1,466,640	1,450,152	3,151,008	11,381,040
3	37,798	100,240	81,432	78,570	81,378	1,354,392	1,376,640	2,954,592	10,622,160
4	47,608	126,224	75,834	72,972	75,528	1,641,168	1,641,600	3,580,128	13,066,560
5	50,520	132,264	88,920	85,914	87,336	1,401,336	1,428,480	3,145,536	11,550,240
6	49,176	127,624	89,118	85,590	89,964	1,885,968	1,956,312	4,362,336	15,958,800
7	37,120	96,320	64,710	61,362	64,656	1,414,512	1,417,680	3,065,184	11,113,200
8	36,726	97,456	74,592	71,748	74,502	1,327,464	1,376,136	2,930,688	10,594,080
9	36,814	96,008	64,854	62,046	65,214	1,541,016	1,516,104	3,285,792	11,805,840
10	39,258	100,896	82,620	80,028	81,504	1,477,584	1,444,896	3,119,904	11,090,880
11	38,736	100,880	79,938	77,058	80,118	1,450,224	1,473,192	3,217,248	11,599,200
12	48,864	127,752	82,890	79,920	82,422	1,570,752	1,570,320	3,431,808	12,384,000
13	53,722	138,888	103,482	97,866	102,222	2,040,840	2,185,272	4,831,200	17,755,920
14	37,376	95,712	58,320	55,710	59,094	1,618,704	1,676,088	3,676,896	13,459,680
15	39,820	103,888	81,594	78,714	80,406	1,514,520	1,583,208	3,449,088	12,494,160
16	40,438	104,376	93,114	90,828	91,404	1,748,952	1,667,448	3,674,592	13,114,080
17	40,088	104,704	84,042	82,350	84,618	1,670,904	1,707,696	3,728,448	13,520,880
18	41,290	107,672	96,894	94,824	94,014	1,686,240	1,720,296	3,757,536	13,523,040
19	48,580	126,928	84,672	80,694	82,908	1,731,168	1,762,848	3,832,992	14,076,000
20	51,080	131,632	100,764	95,076	100,098	2,001,672	2,150,208	4,778,208	17,507,520
21	36,014	91,360	47,466	45,666	48,492	1,756,440	1,790,208	3,975,264	14,533,920
22	39,106	101,664	80,964	77,202	80,118	1,712,304	1,811,160	3,987,648	14,562,720
23	40,214	104,720	94,860	92,790	92,664	1,774,872	1,809,864	3,940,416	14,494,320
24	39,856	103,168	93,978	91,818	92,142	1,765,728	1,832,256	4,002,336	14,373,360
25	41,138	105,856	93,438	90,666	91,602	1,636,488	1,628,064	3,525,984	12,684,960
26	50,324	129,336	89,766	88,488	89,514	1,462,968	1,478,520	3,294,432	11,782,800
27	52,468	136,648	104,004	98,514	104,040	1,417,320	1,447,704	3,163,680	11,657,520
28	36,648	93,128	68,598	65,934	69,174	1,384,992	1,414,512	3,079,872	11,128,320
29	39,066	101,624	81,792	79,560	81,414	1,398,384	1,404,000	3,070,944	11,180,160
30	38,690	98,944	74,826	72,612	72,216	1,465,560	1,452,384	3,184,416	11,601,360
31	41,076	107,896	105,444	103,554	103,860	1,492,056	1,488,384	3,246,048	11,424,240
Total	1,302,978	3,385,952	2,570,544	2,479,716	2,550,474	49,221,432	50,078,448	109,499,040	396,902,880

Table 38. Southern Field Division Energy Data

(in kWh)

July 2003

Date	West Branch			East Branch			
	Oso Pumping Plant Load	Warne Powerplant Generation	Castaic Powerplant SWP Generation	Alamo Powerplant Generation	Pearblossom Pumping Plant Load	Devil Canyon Powerplant Generation	Mojave Siphon Powerplant Generation
1	425,600	1,140,768	1,920,000	329,392	1,898,160	3,532,704	193,095
2	417,648	784,512	1,920,000	333,088	2,112,840	3,667,104	264,621
3	436,408	1,236,672	1,920,000	319,956	1,761,528	3,794,208	198,366
4	510,384	1,210,680	1,920,000	380,408	2,321,340	3,754,368	270,270
5	440,664	1,196,712	1,920,000	357,364	2,141,628	3,885,504	267,750
6	841,512	1,191,024	1,920,000	380,464	2,295,252	3,458,880	269,787
7	450,632	1,237,536	1,920,000	315,560	1,829,112	3,743,904	228,186
8	424,648	1,207,872	1,920,000	307,076	1,891,740	3,817,632	225,708
9	453,208	1,293,480	1,820,000	344,540	2,010,216	3,736,032	226,233
10	476,392	1,206,792	1,920,000	270,900	1,898,184	3,751,200	227,682
11	487,816	1,265,544	1,920,000	310,520	1,985,568	3,529,632	237,468
12	518,728	1,106,856	1,920,000	360,640	1,961,208	3,616,320	226,947
13	1,004,136	1,141,488	1,920,000	380,744	2,459,592	3,639,744	273,945
14	655,144	1,665,360	2,640,000	346,136	1,881,444	3,702,048	241,605
15	624,456	1,664,712	2,640,000	286,832	1,862,364	3,660,384	216,951
16	699,216	1,644,408	2,640,000	329,840	1,828,932	3,457,728	223,314
17	688,296	1,657,368	2,640,000	322,252	2,018,196	3,849,696	226,128
18	688,744	1,662,408	2,640,000	331,688	2,011,032	3,742,464	229,047
19	686,392	1,643,688	2,640,000	384,776	2,166,336	3,686,208	243,579
20	1,005,256	1,501,272	2,640,000	421,344	2,405,520	3,736,800	274,932
21	793,856	1,564,056	2,520,000	370,972	1,877,208	3,667,104	232,407
22	793,856	1,544,976	2,520,000	370,384	1,994,220	3,645,312	231,840
23	792,624	1,439,856	2,520,000	352,772	1,991,352	3,749,472	232,008
24	666,512	778,968	2,520,000	393,848	2,174,184	3,471,072	256,095
25	425,096	998,424	2,520,000	392,980	2,498,748	3,660,576	259,560
26	412,888	997,776	1,560,000	352,884	2,283,504	3,639,072	290,535
27	326,704	997,200	1,560,000	399,784	2,247,504	3,632,448	274,428
28	383,880	996,768	1,560,000	353,612	2,069,232	3,616,800	240,093
29	383,600	996,624	1,560,000	352,548	1,988,148	3,754,848	217,959
30	439,544	1,155,168	1,560,000	355,936	2,087,340	3,690,144	241,962
31	407,624	1,183,032	1,560,000	355,180	2,102,952	3,699,168	237,153
Total	17,761,464	39,312,000	65,300,000	10,864,420	64,054,584	113,988,576	7,479,654